SLIC # 0744
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1 May 2001

Mr. Michael Farley, Esq.
Jervis B. Webb Company
34375 West Twelve Mile Road
Farmington Hills, Michigan 48331

Subject: Quarterly Progress Report for January through March 2001
For the Jervis B. Webb Company of California Property,
5030 Firestone Boulevard, South Gate, California
(RWQCB SLIC File No. 744; EKI 991103.01)

Dear Mr. Farley:

Erler & Kalinowski, Inc. is pleased to present the enclosed *Quarterly Progress Report for January through March 2001*, dated 30 April 2001. This report describes the activities completed during the period from January through March 2000 at the Jervis B. Webb Company of California property located at 5030 Firestone Boulevard in South Gate, California.

Please contact us if you have any comments or questions.

Very truly yours,

ERLER & KALINOWSKI, INC.

Steven R. Chambers, Ph.D.
Project Manager

REGISTERED PROFESSIONAL ENGINEER
STEVEN G. MILLER
No. 043419
EXP 06/30/04
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STATE OF CALIFORNIA

Steven G. Miller, P.E.
Supervising Engineer

cc: Mr. Michael Feeley

Quarterly Progress Report
January through March 2001

Jervis B. Webb Company of California
5030 Firestone Boulevard
South Gate, California

30 April 2001

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Consulting Engineers and Scientists
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Quarterly Progress Report: January through March 2001
Jervis B. Webb Company of California
5030 Firestone Boulevard, South Gate, California

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1. INTRODUCTION

Erler & Kalinowski, Inc. ("EKI") is pleased to present this *Quarterly Progress Report, January through March 2001* for the property located at 5030 Firestone Boulevard and 9301 Rayo Avenue in South Gate, California (collectively referred to as the "Site," see Figure 1). The work documented in this report was performed on behalf of the Jervis B. Webb Company of California ("Webb"). The property at 5030 Firestone Boulevard is owned by Webb and the adjacent property at 9301 Rayo Avenue is owned by Reliable Steel Building Products, Inc. ("Reliable Steel").

The principal objectives of the activities performed during this quarter were to (1) monitor the groundwater wells at the Site, and (2) continue operation of the soil vapor extraction ("SVE") system at the Site. The quarterly groundwater monitoring activities described herein were performed in accordance with the procedures described in *Project Tasks, Schedule, and Work Plan for Additional Groundwater Investigation and Quarterly Groundwater Monitoring at the Jervis B. Webb Company Property* by EKI, dated 29 September 1998. The SVE activities described herein were performed in accordance with the *Work Plan for Clarifier Removal and Soil Remediation by Soil Vapor Extraction* by EKI, dated 14 April 1999 ("SVE Work Plan"). The California Regional Water Quality Control Board, Los Angeles Region ("RWQCB") approved the SVE Work Plan, with two modifications, in its letter to Webb dated 18 May 1999.

2. QUARTERLY GROUNDWATER MONITORING

2.1. Measurements of Groundwater Elevation

The depth to groundwater in each of the five groundwater monitoring wells at the Site was measured on 4 January, 22 February, and 8 March 2001 (see Figure 2 for well locations). These data are provided in Table 1. The depth to the groundwater table beneath the Site is approximately 45 feet below ground surface ("ft bgs"). Contours representing the elevation of the groundwater table on 4 January, 22 February, and 8 March 2001 are shown on Figures 3, 4, and 5, respectively. As inferred from the contours shown on these figures, the primary direction of groundwater flow in the groundwater table aquifer beneath the Site appears to be toward the south-southeast.

2.2. Groundwater Sampling

Samples of groundwater were collected from each of the five groundwater monitoring wells at the Site on 8 March 2001. In addition, a duplicate sample of groundwater was collected from well MW-2. All samples of groundwater were submitted to Orange Coast Analytical, Inc. in Tustin, California, for analyses of volatile organic compounds ("VOCs") using United States Environmental Protection Agency ("EPA") Method 8260B, total arsenic using EPA Method 206.2, and California Code of Regulations ("CCR") metals, including hexavalent chromium, using EPA Methods 200.7, 218.4, and 245.1. The analytical results for VOCs and metals detected in groundwater samples collected during this monitoring event are summarized in Tables 2 and 3, respectively.

2.2.1. Groundwater Sampling Procedures

Prior to sampling of groundwater, each well was purged of a minimum of three well-casing volumes of groundwater using a submersible, electric pump. Groundwater purging was performed by West Hazmat Drilling Corp. ("West Hazmat") of Anaheim, California and groundwater samples were collected by Drewelow Engineering, Inc. ("Drewelow") of Encinitas, California. All down-hole equipment was thoroughly steam cleaned before use at each well.

During purging of the monitoring wells on 8 March 2001, the temperature, pH, conductivity, and turbidity of the purged groundwater were recorded by Drewelow. The instruments used for monitoring the purged groundwater were calibrated prior to commencement of groundwater purging. For each groundwater monitoring well, the time, water quality parameters, and volume of purged groundwater were recorded on forms in the field (see Appendix A). Purging at each well continued until the variability of the monitored groundwater quality parameters stabilized to within approximately ten percent. Groundwater

quality parameters were generally stable after purging three casing volumes of water from each well. The final turbidity of the purged groundwater was generally low, i.e., between 0.76 and 3.75 nephelometric turbidity units (see Appendix A).

A groundwater sample was collected from each monitoring well using a disposable polyethylene bailer. A new bailer was used to collect the sample from each well. A sample label that included a unique sample identification number, the time, and the date when the sample was collected was attached to each sample container. Sample containers were sealed in zip-lock plastic bags and placed in a cooler with ice for temporary storage and transport to the analytical laboratory. Chain-of-Custody forms were initiated in the field and stored with the samples. Laboratory reports and Chain-of-Custody forms for groundwater samples are attached in Appendix B.

2.2.2. Analytical Results for Groundwater Samples

2.2.2.1. Volatile Organic Compounds

Trichloroethene ("TCE"), cis-1,2-dichloroethene ("c-1,2-DCE"), 1,1-dichloroethene ("1,1-DCE"), and toluene were the only VOCs detected in the samples of groundwater collected at the Site on 8 March 2001 (see Table 2). The concentrations of TCE detected in the samples of groundwater collected at the Site are shown on Figure 6. Consistent with previous results, TCE was the chemical of concern detected with the greatest frequency (five of six samples) and at the highest concentration (23,000 micrograms per liter ("ug/L") in well MW-1). The concentrations of TCE (<0.5 to 23,000 ug/L), c-1,2-DCE (<0.5 to 260 ug/L), and 1,1-DCE (<0.5 ug/L to 55 ug/L) detected in samples of the groundwater collected at the Site during March 2001 were within the ranges of concentrations detected during previous monitoring at the Site (see Table 2). The only detection of toluene, at a concentration of 140 ug/L, was in the sample of groundwater collected from well MW-5. No VOCs were detected in the sample of groundwater collected from downgradient monitoring well MW-4.

2.2.2.2. Metals

As requested by the RWQCB in its meeting with Webb on 8 February 2001, the samples of groundwater collected at the Site during March 2001 were analyzed for CCR metals. Arsenic (5.6 to 320 ug/L), barium (19 to 150 ug/L), molybdenum (<50 to 1,100 ug/L), and zinc (12 to 25 ug/L) were the only metals detected in the samples of groundwater collected at the Site on 8 March 2001 (see Table 3).

2.2.3. Quality Assurance/Quality Control

Standard laboratory QA/QC procedures used for the project included analyses of matrix spikes, matrix spike duplicates, a quality control check spike sample, and a method blank. The percent recoveries of the matrix spike, matrix spike duplicate, and the quality control check spike sample were within acceptable ranges. No analytes were detected in the method

blank samples analyzed for this project. QA/QC results are provided with the laboratory reports in Appendix B.

A duplicate groundwater sample was collected from monitoring well MW-2 (see Tables 2 and 3). Two VOCs (TCE and c-1,2-DCE) and four metals (total arsenic, barium, molybdenum, and zinc) were detected in both of the samples of groundwater collected from well MW-2. The relative percentage differences ("RPDs") for these analytes ranged between zero and 16 percent. These RPDs indicate an acceptable range of sampling and analytical reproducibility.

An equipment rinsate blank also was collected and analyzed during the groundwater sampling event on 8 March 2001. Following the sampling of well MW-3 and steam cleaning of the purge pump, the equipment rinsate blank was collected by pouring water over the pump into sample containers. The rinse water was provided by West Hazmat from an offsite source. A sample of the rinse water also was submitted to the analytical laboratory for analysis. The equipment rinsate blank and the sample of rinse water were analyzed for VOCs using EPA Method 8260B.

Several VOCs were detected in both the equipment rinsate blank and the sample of rinse water. TCE (120 ug/L), c-1,2-DCE (5.4 ug/L), and bromoform (2.3 ug/L) were detected in the equipment rinsate blank, and TCE (0.7 ug/L), bromoform (2.9 ug/L), and chlorodibromomethane (1.2 ug/L) were detected in the sample of rinse water. Bromoform and chlorodibromomethane were not detected in any of the samples of groundwater collected from the monitoring wells at the Site. The concentrations of TCE and c-1,2-DCE detected in the equipment rinsate blank were more than 90 percent lower than the concentrations detected in the sample of groundwater collected from well MW-3. As none of the chemicals detected in the equipment rinsate blank were detected at concentrations more than one-tenth of those detected in the sample of groundwater collected from the well purged prior to the decontamination activities, it does not appear that the rinse water quality or equipment cleaning procedures significantly compromised the integrity of the groundwater samples.

3. SOIL REMEDIATION

3.1. Description of the Soil Vapor Extraction System

3.1.1. Soil Vapor Wells

Four soil vapor extraction wells and four soil vapor monitoring probes were installed at the Site during June 1999 (see Figure 7). The wells and probes were designed to allow for vapor extraction and monitoring in both the shallow and deep vadose zones at the Site. All of the wells were constructed using Schedule 40 PVC casing and screen. More detailed descriptions of well construction and subsurface conditions at the Site are contained in reports previously provided to the RWQCB (see EKI, 14 April 1999; EKI, 13 October 1999).

On 29 June 2000, two of the soil vapor monitoring probes (VMP-D1 and VMP-D2) were converted to extraction wells by connecting the probes to the soil vapor extraction system at the Site with two-inch diameter PVC pipe. These wells have been used as extraction wells during system operation since 6 July 2000. On 8 March 2001, vapor monitoring probe VMP-1 was converted to an extraction well by connecting the probe to the soil vapor extraction system at the Site with a two-inch diameter hose. This well has been used as an extraction well during system operation since 8 March 2001.

Soil Vapor Extraction Wells: The four shallow vadose zone SVE wells (see locations SVE-1, SVE-2, SVE-3, and VMP-1 on Figure 7) are constructed with two-inch diameter PVC casing. Wells SVE-1, SVE-3, and VMP-1 have slotted screen from approximately 19 to 25 ft bgs, and have total depths of approximately 25 ft bgs. Well SVE-2 has slotted screen from approximately 18 to 24 ft bgs, and has a total depth of approximately 24 ft bgs.

The three deep vadose zone SVE wells are wells SVE-D1, VMP-D1, and VMP-D2. Well SVE-D1 is constructed with four-inch diameter PVC casing with slotted screen from approximately 30 to 40 ft bgs, and has a total depth of approximately 44 ft bgs. Deep vadose zone SVE wells VMP-D1 and VMP-D2 are constructed in the same boreholes with shallow vadose zone SVE wells SVE-2 and SVE-3, respectively, and are constructed with 2-inch diameter PVC casing. Well VMP-D1 has slotted screen from approximately 30 to 40 ft bgs, and has a total depth of approximately 43 ft bgs. Well VMP-D2 has slotted screen from approximately 31 to 41 ft bgs, and has a total depth of approximately 44 ft bgs.

Soil Vapor Monitoring Probes: The shallow vadose zone vapor monitoring probe (see location VMP-2 on Figure 7) is constructed with two-inch diameter PVC casing with slotted screen from approximately 19 to 25 ft bgs, and has a total depth of approximately 25 ft bgs.

3.1.2. Soil Vapor Extraction and Treatment System

Installation of the SVE system was completed at the Site during March 2000. Soil vapors from the extraction wells are passed through a condensate knock-out vessel and through a 200 cubic feet per minute ("cfm") blower (see Figure 8). The soil vapors are then passed through a heat exchanger and two 1,000-pound granular activated carbon ("GAC") vessels in series, with the treated vapors exhausted to the atmosphere under permit of the South Coast Air Quality Management District ("SCAQMD"). Valves on piping from each well and an ambient air inlet valve located ahead of the knockout vessel allow regulation of air extracted from the wells. PVC pipe and fittings are used throughout the system. Electrical power to the system is metered, and the system is enclosed in a fenced area.

Vacuum gauges, a hand-held flow meter, and sampling ports are used to monitor each of the vapor extraction wells. Vacuum is measured in inches of water column ("in-wc"), vapor flow rate is measured in actual cubic feet per minute ("acfm"), and concentrations of VOCs are measured in parts per million by volume ("ppmv"). Sampling ports were installed at each of the vapor wells and probes and several locations in the SVE system for monitoring of VOC concentrations.

3.2. Operation and Monitoring of the SVE System

3.2.1. System Operation

The SVE system began operating on 16 March 2000. Throughout this reporting period (i.e., January through March 2001), wells SVE-1, SVE-2, SVE-3, SVE-D1, VMP-D1, and VMP-D2 were used as vapor extraction wells. Well VMP-1 has been used as an extraction well since 8 March 2001. Operation and maintenance of the SVE system is performed by Drewelow.

The SVE system was shut down on 4 January 2001 following a static vapor sampling event (see EKI, 5 February 2001). The system was restarted on 19 February 2001 and was in operation through the remainder of the reporting period.

3.2.2. System Monitoring

The following parameters have been monitored during operation of the SVE system: vapor flow rate from the extraction wells; total vapor flow rate; vacuum (pressure) at the extraction wells and monitoring points; blower influent flow rate and vacuum; blower discharge flow rate, pressure, and temperature; and VOC concentrations in the extracted soil vapor. The water level in the knockout tank is also monitored. No water had been observed in the knockout tank prior to a system shutdown on 21 June 2000. However, during this reporting period, water was observed in the piping of extraction well SVE-2 and the inlet manifold to the system blower. Approximately 200 gallons of water were removed from the SVE system

during this reporting period. The water is stored in 55-gallon drums and transported offsite for disposal and/or treatment.

Monitoring data collected at the inlet to the system blower prior to dilution with ambient air are presented in Table 4a and Figure 9a. Monitoring data collected at individual soil vapor extraction wells are presented in Tables 4b through 4h and Figures 9b through 9h. Field monitoring data for the soil vapor monitoring probes are presented in Table 5.

On 29 March 2001, flow rates in the four shallow zone extraction wells (SVE-1, SVE-2, SVE-3, and VMP-1) ranged from 2.3 to 2.7 acfm. The flow rates in the three deep zone extraction wells (SVE-D1, VMP-D1, and VMP-D2) ranged from 19 to 21 acfm at the end of the reporting period.

3.2.3. Soil Vapor Field Monitoring

Total VOC concentrations in soil vapor samples were also periodically monitored with an organic vapor meter, which utilizes a photoionization detector ("PID") to measure total concentrations of VOCs. The PID does not distinguish between individual compounds, but measures the total concentration of VOCs in samples of vapor. Samples of soil vapor were collected in Tedlar bags for the PID analyses. The PID was calibrated with 100 ppmv of isobutylene. PID readings from soil vapor samples collected at the system blower, the extraction wells, and the vapor monitoring probes are presented in Tables 4a through 4h and in Table 5. These data are plotted as a function of time on Figures 9a through 9h. The PID readings suggest that total VOC concentrations in the blower influent and each of the vapor wells decreased during this reporting period.

3.2.4. Estimated Removal of VOCs

As no samples of soil vapor were collected for laboratory analysis during this reporting period, no estimates of VOC mass removal by the SVE system have been attempted for this reporting period. Based on measurements made at the blower influent and laboratory analytical data, it was estimated that a total of 133 pounds of VOCs, including 108 pounds of TCE, had been extracted from soil at the Site as of 14 December 2000 (see Table 4a and EKI, 5 February 2001). Given that the PID readings for vapor samples collected from the SVE system during this reporting period were generally lower than previous measurements, it appears likely that less than 10 pounds of VOCs were extracted from soil at the Site during this reporting period (see Table 4a).

3.2.5. SCAQMD Compliance Monitoring

During this reporting period, the effluent of the treatment system was monitored with a PID on a weekly basis to demonstrate conformance with the limitations of the SCAQMD permit for the system. For treatment system monitoring, the PID was calibrated with 50 ppmv of hexane.

The vapor treatment components of the SVE system at the Site are owned by Drewelow, and the SCAQMD permit is held by Drewelow. Drewelow reports that effluent concentrations measured by the PID have been within the discharge limitations of the SCAQMD permit throughout the operation of the SVE system.

4. PLANNED ACTIVITIES FOR NEXT QUARTER

During the next quarter, the depth to groundwater in the monitoring wells at the Site will continue to be measured on a monthly basis. Samples of groundwater will be collected from each of the groundwater monitoring wells at the Site during June 2001. These samples will be analyzed for VOCs using EPA Method 8260B and for CCR Metals using EPA Methods 206.2, 200.7, 218.4, and 245.1.

Webb will continue to operate the SVE system at the Site during the next quarter. Flow rates, vacuum, and PID readings will be monitored at the extraction wells on a weekly basis during operation of the SVE system.

5. SUMMARY

Gauging of the depth to the groundwater table was performed at the groundwater monitoring wells at the Site on 4 January, 22 February, and 8 March 2001. On the basis of these measurements, the predominant direction of groundwater flow appears to be toward the south-southeast under both the Webb and Reliable Steel properties. This estimated direction of groundwater flow is consistent with previous groundwater monitoring at the Site.

The only VOCs detected in the samples of groundwater collected at the Site on 8 March 2001 were TCE, c-1,2-DCE, 1,1-DCE, and toluene. Consistent with previous results, TCE was the chemical of concern detected with the greatest frequency (five of six samples) and at the highest concentration (23,000 ug/L in well MW-1). The concentrations of TCE, c-1,2-DCE, and 1,1-DCE detected in samples of the groundwater collected at the Site during March 2000 were within the ranges of concentrations detected during previous monitoring at the Site. The only detection of toluene (140 ug/L) was in the sample of groundwater collected from well MW-5. No VOCs were detected in the sample of groundwater collected from downgradient monitoring well MW-4.

As requested by the RWQCB in its meeting with Webb on 8 February 2001, the samples of groundwater collected at the Site during March 2001 were analyzed for CCR metals. Arsenic (5.6 to 320 ug/L), barium(19 to 150 ug/L), molybdenum (<50 to 1,100 ug/L), and zinc (12 to 25 ug/L) were the only metals detected in the samples of groundwater collected at the Site on 8 March 2001 (see Table 3). No other metals, including chromium, were detected in the samples of groundwater collected from the monitoring wells at the Site.

The SVE system at the Site has operated continuously since the restart of the system on 19 February 2001. PID readings from soil vapor samples collected at the extraction wells and vapor monitoring probes suggest that total VOC concentrations in the blower influent and each of the vapor wells decreased during this reporting period.

6. REFERENCES AND PREVIOUS REPORTS

Erler & Kalinowski, Inc., 5 February 2001. *Quarterly Progress Report for October through December 2000 for the Jervis B. Webb Company of California Property, 5030 Firestone Boulevard, South Gate, California.*

Erler & Kalinowski, Inc., 26 October 2000. *Quarterly Progress Report for July through September 2000 for the Jervis B. Webb Company of California Property, 5030 Firestone Boulevard, South Gate, California.*

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Erler & Kalinowski, Inc., 30 June 1998. *Phase II Groundwater Investigation Report at 5030 Firestone Boulevard in South Gate, California.*

Erler & Kalinowski, Inc., 18 February 1998. *Phase II Soil Investigation Report for the Jervis B. Webb Company Property at 5030 Firestone Boulevard in South Gate, California.*

Erler & Kalinowski, Inc., 20 June 1996. *Phase I Environmental Site Assessment of the Jervis B. Webb Properties at 9301 Rayo Avenue and 5030 Firestone Boulevard in South Gate, California.*

TABLES

TABLE 1

Groundwater Elevations in Monitoring Wells

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Well ID	Date	Elevation of Top-of-Casing (ft msl)	Depth to Water (ft bgs)	Elevation of Water Surface (ft msl)	Comments
MW-1	2/27/98	106.09	44.79	61.30	
	3/2/98	106.09	44.82	61.27	
	3/4/98	106.09	44.58	61.51	
	4/8/98	106.09	44.57	61.52	
	5/20/98	106.09	43.99	62.10	
	10/8/98	106.09	43.38	62.71	
	11/5/98	106.09	43.14	62.95	
	12/21/98	106.09	43.37	62.72	
	1/19/99	106.09	43.26	62.83	
	2/3/99	106.09	42.98	63.11	
	3/30/99	106.09	43.22	62.87	
	6/1/99	106.09	43.48	62.61	
	7/29/99	106.09	43.82	62.27	
	9/1/99	106.09	43.76	62.33	
	9/23/99	106.09	44.03	62.06	
	10/18/99	106.09	44.43	61.66	
	12/8/99	106.09	44.55	61.54	
	1/27/00	106.09	44.40	61.69	
	2/28/00	106.09	44.34	61.75	
	3/15/00	106.09	44.06	62.03	
	4/13/00	106.09	44.73	61.36	
	5/18/00	106.09	44.58	61.51	
	6/20/00	106.09	44.60	61.49	
	7/13/00	106.09	45.17	60.92	
	8/17/00	106.09	45.30	60.79	
	9/7/00	106.09	45.15	60.94	
	10/26/00	106.09	45.87	60.22	
	11/21/00	106.09	45.60	60.49	
	12/5/00	106.09	45.72	60.37	
	1/4/01	106.09	45.67	60.42	
	2/22/01	106.09	45.43	60.66	
	3/8/01	106.09	45.09	61.00	

TABLE 1

Groundwater Elevations in Monitoring Wells

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Well ID	Date	Elevation of Top-of-Casing (ft msl)	Depth to Water (ft bgs)	Elevation of Water Surface (ft msl)	Comments
MW-2	2/27/98	106.65	44.02	62.63	
	3/2/98	106.65	44.06	62.59	
	3/4/98	106.65	44.13	62.52	
	4/8/98	106.65	NR	--	Truck parked on well.
	5/20/98	106.65	43.51	63.14	
	10/8/98	106.65	42.84	63.81	
	11/5/98	106.65	42.64	64.01	
	12/21/98	106.65	42.69	63.96	
	1/19/99	106.65	42.66	63.99	
	2/3/99	106.65	42.55	64.10	
	3/30/99	106.65	42.63	64.02	
	6/1/99	106.65	42.91	63.74	
	7/29/99	106.65	43.13	63.52	
	9/1/99	106.65	43.14	63.51	
	9/23/99	106.65	43.35	63.30	
	10/18/99	106.65	43.60	63.05	
	12/8/99	106.65	43.62	63.03	
	1/27/00	106.65	43.86	62.79	
	2/28/00	106.65	43.86	62.79	
	3/15/00	106.65	43.62	63.03	
	4/13/00	106.65	43.92	62.73	
	5/18/00	106.65	43.50	63.15	
	6/20/00	106.65	43.48	63.17	
	7/13/00	106.65	43.29	63.36	
	8/17/00	106.65	43.38	63.27	
	9/7/00	106.65	44.30	62.35	
	10/26/00	106.65	44.74	61.91	
	11/21/00	106.65	44.52	62.13	
	12/5/00	106.65	44.51	62.14	
	1/4/01	106.65	44.55	62.10	
	2/22/01	106.65	43.91	62.74	
	3/8/01	106.65	43.25	63.40	

TABLE 1

Groundwater Elevations in Monitoring Wells

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Well ID	Date	Elevation of Top-of-Casing (ft msl)	Depth to Water (ft bgs)	Elevation of Water Surface (ft msl)	Comments
MW-3	2/27/98	105.87	44.55	61.32	
	3/2/98	105.87	44.56	61.31	
	3/4/98	105.87	44.40	61.47	
	4/8/98	105.87	44.39	61.48	
	5/20/98	105.87	43.80	62.07	
	10/8/98	105.87	43.26	62.61	
	11/5/98	105.87	43.60	62.27	
	12/21/98	105.87	43.33	62.54	
	1/19/99	105.87	43.18	62.69	
	2/3/99	105.87	42.97	62.90	
	3/30/99	105.87	43.19	62.68	
	6/1/99	105.87	43.58	62.29	
	7/29/99	105.87	43.85	62.02	
	9/1/99	105.87	43.90	61.97	
	9/23/99	105.87	44.10	61.77	
	10/18/99	105.87	44.37	61.50	
	12/8/99	105.87	44.64	61.23	
	1/27/00	105.87	44.69	61.18	
	2/28/00	105.87	44.75	61.12	
	3/15/00	105.87	44.41	61.46	
	4/13/00	105.87	44.86	61.01	
	5/18/00	105.87	44.94	60.93	
	6/20/00	105.87	44.88	60.99	
	7/13/00	105.87	45.25	60.62	
	8/17/00	105.87	45.06	60.81	
	9/7/00	105.87	44.83	61.04	
	10/26/00	105.87	45.94	59.93	
	11/21/00	105.87	46.00	59.87	
	12/5/00	105.87	45.77	60.10	
	1/4/01	105.87	45.89	59.98	
	2/22/01	105.87	45.53	60.34	
	3/8/01	105.87	45.21	60.66	

TABLE 1

Groundwater Elevations in Monitoring Wells

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Well ID	Date	Elevation of Top-of-Casing (ft msl)	Depth to Water (ft bgs)	Elevation of Water Surface (ft msl)	Comments
MW-4	11/3/98	104.72	42.77	61.95	Well Developed
	11/5/98	104.72	42.64	62.08	
	12/21/98	104.72	42.93	61.79	
	1/19/99	104.72	42.80	61.92	
	2/3/99	104.72	42.63	62.09	
	3/30/99	104.72	42.89	61.83	
	6/1/99	104.72	43.28	61.44	
	7/29/99	104.72	43.63	61.09	
	9/1/99	104.72	43.70	61.02	
	9/23/99	104.72	43.96	60.76	
	10/18/99	104.72	44.22	60.50	
	12/8/99	104.72	44.48	60.24	
	1/27/00	104.72	44.70	60.02	
	2/28/00	104.72	NR	--	Truck parked on well.
	3/15/00	104.72	44.37	60.35	
	4/13/00	104.72	NR	--	Truck parked on well.
	5/18/00	104.72	44.81	59.91	
	6/20/00	104.72	44.94	59.78	
	7/13/00	104.72	45.10	59.62	
	8/17/00	104.72	45.36	59.36	
	9/7/00	104.72	45.31	59.41	
	10/26/00	104.72	45.89	58.83	
	11/21/00	104.72	45.86	58.86	
	12/5/01	104.72	45.71	59.01	
	1/4/01	104.72	45.79	58.93	
	2/22/01	104.72	45.49	59.23	
	3/8/01	104.72	45.62	59.10	

TABLE 1

Groundwater Elevations in Monitoring Wells

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Well ID	Date	Elevation of Top-of-Casing (ft msl)	Depth to Water (ft bgs)	Elevation of Water Surface (ft msl)	Comments
MW-5	11/3/98	106.13	43.32	62.81	Well Developed
	11/5/98	106.13	43.30	62.83	
	12/21/98	106.13	43.58	62.55	
	1/19/99	106.13	43.46	62.67	
	2/3/99	106.13	43.20	62.93	
	3/30/99	106.13	43.49	62.64	
	6/1/99	106.13	43.88	62.25	
	7/29/99	106.13	44.19	61.94	
	9/1/99	106.13	44.22	61.91	
	9/23/99	106.13	44.48	61.65	
	10/18/99	106.13	44.72	61.41	
	12/8/99	106.13	44.98	61.15	
	1/27/00	106.13	45.17	60.96	
	2/28/00	106.13	45.15	60.98	
	3/15/00	106.13	44.87	61.26	
	4/13/00	106.13	45.22	60.91	
	5/18/00	106.13	45.29	60.84	
	6/20/00	106.13	45.30	60.83	
	7/13/00	106.13	45.63	60.50	
	8/17/00	106.13	45.85	60.28	
	9/7/00	106.13	45.69	60.44	
	10/26/00	106.13	46.35	59.78	
	11/21/00	106.13	46.33	59.80	
	12/5/00	106.13	46.16	59.97	
	1/4/01	106.13	46.26	59.87	
	2/22/01	106.13	46.00	60.13	
	3/8/01	106.13	45.95	60.18	

NOTES:

ft msl = feet above mean sea level
ft bgs = feet beneath ground surface
NR = Not Recorded
-- Not Applicable

1. Monitoring well northing and easting coordinates and top-of-casing elevations for wells MW-1, MW-2, and MW-3 were surveyed on 6 March 1998 by Rattray & Associates, Inc.
2. Monitoring well northing and easting coordinates and top-of-casing elevations for wells MW-4 and MW-5 were surveyed on 21 December 1998 by Rattray & Associates, Inc.

TABLE 2
Results of VOCs Detected in Groundwater Samples

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Well ID	Sample Number	Sample Date	Analyte Concentration (ug/L)								
			Benzene	Toluene	1,1-DCA	1,1-DCE	1,2-DCA	c-1,2-DCE	t-1,2-DCE	PCE	TCE
MW-1	MW-1-0304	3/4/98	<100	<100	<100	220	<100	130	<100	140	24,000
	MW-1-0304DUP	3/4/98	<100	<100	<100	210	<100	150	<100	160	25,000
	MW-1-0520	5/20/98	<125	<125	<125	160	<125	130	<125	<125	24,000
	MW-1	11/5/98	<125	<125	<125	140	<125	160	<125	170	28,000
	MW-1	2/3/99	<125	<125	<125	130	<125	160	<125	160	27,000
	MW-1	6/1/99	<100	<100	<100	140	<100	190	<100	160	28,000
	MW-1	9/1/99	<100	<100	140	220	<100	200	<100	190	32,000
	MW-1	12/8/99	<250	<250	<250	<250	<250	<250	<250	<250	30,000
	MW-1-A[3]	12/8/99	<100	<100	110	150	<100	200	<100	160	33,000
	MW-1	3/15/00	<100	<100	<100	160	<100	230	<100	150	30,000
	MW-1	6/20/00	<100	<100	<100	<100	<100	<100	<100	<100	24,000
	MW-1	9/7/00	<100	<100	<100	<100	<100	<100	<100	<100	21,000
	MW-1	12/5/00	<100	<100	<100	<100	<100	<100	<100	<100	30,000
	MW-1	3/8/01	<100	<100	<100	<100	<100	<100	<100	<100	23,000
MW-2	MW-2-0304	3/4/98	<10	<10	13	34	<10	65	<10	<10	2,700
	MW-2-0520	5/20/98	<10	<10	14	38	<10	68	<10	<10	3,000
	MW-2	11/5/98	<10	<10	13	36	<10	68	<10	<10	3,200
	MW-2	2/3/99	<10	<10	13	36	<10	70	<10	<10	3,200
	MW-2	6/1/99	<10	<10	12	34	<10	68	<10	<10	2,800
	MW-2	9/1/99	<10	<10	16	49	<10	72	<10	<10	3,100
	MW-2	12/8/99	<13	<13	<13	<13	<13	57	<13	<13	2,400
	MW-2-A[3]	12/8/99	<10	<10	12	22	<10	63	<10	<10	2,600
	MW-2	3/15/00	<10	<10	<10	<10	<10	74	<10	<10	2,800
	MW-2	6/20/00	<10	<10	<10	<10	<10	46	<10	<10	2,000
	MW-2	9/7/00	<10	<10	<10	<10	<10	42	<10	<10	1,800
	MW-2	12/5/00	<10	<10	<10	<10	<10	50	<10	<10	2,300
	MW-2	3/8/01	<10	<10	<10	<10	<10	44	<10	<10	1,800
	MW-2-DUP	3/8/01	<10	<10	<10	<10	<10	42	<10	<10	1,600

TABLE 2
Results of VOCs Detected in Groundwater Samples

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Well ID	Sample Number	Sample Date	Analyte Concentration (ug/L)								
			Benzene	Toluene	1,1-DCA	1,1-DCE	1,2-DCA	c-1,2-DCE	t-1,2-DCE	PCE	TCE
MW-3	MW-3-0304	3/4/98	<10	13	14	82	<10	200	<10	<10	2,800
	MW-3-0520	5/20/98	<10	<10	13	58	<10	230	15	<10	2,800
	MW-3	11/5/98	<10	<10	11	66	<10	240	18	<10	2,300
	MW-3	2/3/99	<10	<10	11	64	<10	220	18	<10	2,000
	MW-3	6/1/99	<10	<10	11	66	53	240	18	<10	1,900
	MW-3	9/1/99	<10	<10	13	80	<10	270	20	<10	2,600
	MW-3	12/8/99	<13	<13	<13	<13	<13	220	<13	<13	2,500
	MW-3-A[3]	12/8/99	<10	<10	13	55	<10	240	19	<10	2,900
	MW-3	3/15/00	<10	<10	11	61	<10	300	20	<10	3,100
	MW-3	6/20/00	<10	<10	10	<10	<10	170	14	<10	1,900
	MW-3-DUP	6/20/00	<10	<10	11	<10	<10	200	16	<10	2,100
	MW-3	9/7/00	<10	<10	<10	<10	<10	160	<10	<10	1,700
	MW-3-DUP	9/7/00	<10	<10	<10	<10	<10	160	<10	<10	1,700
	MW-3	12/5/00	<10	<10	<10	<10	<10	200	<10	<10	2,400
	MW-3-DUP	12/5/00	<10	<10	20	<10	<10	210	<10	<10	2,500
	MW-3	3/8/01	<10	<10	<10	55	<10	200	<10	<10	1,700
MW-4	MW-4	11/5/98	<0.5	<0.5	<0.5	<0.5	<0.5	0.67	<0.5	<0.5	6.7
	MW-4	2/3/99	<0.5	<0.5	<0.5	<0.5	2.1	<0.5	<0.5	<0.5	<0.5
	MW-4	6/1/99	<0.5	<0.5	<0.5	<0.5	65	1.1	<0.5	<0.5	0.90
	MW-4	9/1/99	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW-4	12/8/99	1.2	<0.5	<0.5	<0.5	<0.5	4.1	1.0	<0.5	17
	MW-4-A[3]	12/8/99	1.2	<0.5	<0.5	<0.5	<0.5	4.6	1.1	<0.5	18
	MW-4	3/15/00	77	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.68
	MW-4	6/20/00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW-4	9/7/00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW-4	12/5/00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	MW-4	3/8/01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

TABLE 2
Results of VOCs Detected in Groundwater Samples

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Well ID	Sample Number	Sample Date	Analyte Concentration (ug/L)								
			Benzene	Toluene	1,1-DCA	1,1-DCE	1,2-DCA	c-1,2-DCE	t-1,2-DCE	PCE	TCE
MW-5	MW-5	11/5/98	<25	<25	<25	**42**	<25	**380**	**30**	<25	**5,000**
	MW-5-DUP	11/5/98	<25	<25	<25	**40**	<25	**360**	**29**	<25	**4,800**
	MW-5	2/3/99	<25	<25	<25	**49**	<25	**420**	**35**	<25	**5,100**
	MW-5-DUP	2/3/99	<25	<25	<25	**45**	<25	**370**	**31**	<25	**4,500**
	MW-5	6/1/99	<25	<25	<25	**52**	**35**	**420**	**36**	<25	**5,500**
	MW-5-DUP	6/1/99	<25	<25	<25	**56**	**39**	**430**	**35**	<25	**5,300**
	MW-5	9/1/99	<25	<25	<25	**40**	<25	**420**	**45**	<25	**5,500**
	MW-5-DUP	9/1/99	<25	<25	<25	**69**	<25	**440**	**45**	<25	**6,000**
	MW-5	12/8/99	<50	<50	<50	<50	<50	**390**	<50	<50	**5,100**
	MW-5-A[3]	12/8/99	<25	<25	<25	<25	<25	**410**	**25**	<25	**5,300**
	MW-5-DUP	12/8/99	<50	<50	<50	<50	<50	**360**	<50	<50	**5,000**
	MW-5-DUP-A[3]	12/8/99	<25	<25	<25	<25	<25	**410**	**26**	<25	**5,300**
	MW-5	3/15/00	<50	<50	<50	<50	<50	**440**	<50	<50	**5,500**
	MW-5-DUP	3/15/00	<50	<50	<50	<50	<50	**450**	<50	<50	**5,800**
	MW-5	6/20/00	<25	<25	<25	<25	<25	**350**	<25	<25	**4,400**
	MW-5	9/7/00	<10	<10	<10	<10	<10	**280**	<10	<10	**3,700**
	MW-5	12/5/00	<10	<10	<10	<10	<10	**190**	<10	<10	**4,700**
	MW-5	3/8/01	<25	**140**	<25	<25	<25	**260**	<25	<25	**3,600**

NOTES:

1,1-DCA = 1,1-dichloroethane
1,1-DCE = 1,1-dichloroethene
1,2-DCA = 1,2-dichloroethane
c-1,2-DCE = cis-1,2-dichloroethene
t-1,2-DCE = trans-1,2-dichloroethene
PCE = tetrachloroethene
TCE = trichloroethene
VOCs = volatile organic compounds
ug/L = micrograms per liter

1. Analyses performed by Orange Coast Analytical, Inc., in Tustin, California, using EPA Method 8260 for VOCs.
2. < indicates that the analyte was not detected at a concentration above the indicated method detection limit.
3. Samples collected on 8 December 1999 were initially analyzed on 9 December 1999 and were re-analyzed on 17 December 1999 in an attempt to achieve lower method detection limits.

TABLE 3
Additional Analytical Results for Groundwater Samples

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Well ID	Sample Number	Sample Date	Analyte Concentration (mg/L)						
			Arsenic	Barium	Chromium	Chromium VI	Molybdenum	Zinc	TDS
MW-1	MW-1-0520	5/20/98	--	--	--	--	--	--	1,500
	MW-1	3/8/01	0.32	0.13	<0.01	<0.01	0.47	0.016	--
MW-2	MW-2-0520	5/20/98	--	--	--	--	--	--	2,500
	MW-2	3/8/01	0.0066	0.019	<0.01	<0.01	1.1	0.015	--
	MW-2-DUP	3/8/01	0.0056	0.019	<0.01	<0.01	1.1	0.014	--
MW-3	MW-3-0520	5/20/98	--	--	--	--	--	--	1,100
	MW-3	3/8/01	0.080	0.15	<0.01	<0.01	0.71	0.012	--
MW-4	MW-4	3/8/01	0.0079	0.027	<0.01	<0.01	<0.05	0.025	--
MW-5	MW-5	3/8/01	0.19	0.15	<0.01	<0.01	0.84	0.014	--

NOTES: TDS = total dissolved solids -- indicates not analyzed
mg/L = milligrams per liter

1. The following analyses were performed by Orange Coast Analytical, Inc., in Tustin, California:
   Total Arsenic by EPA Method 206.2, CCR Metals by EPA Methods 200.7, 218.4, and 245.1, and TDS by EPA Method 160.1.
2. < indicates that the analyte was not detected at a concentration above the indicated method detection limit.

TABLE 4a

Soil Vapor Extraction Data: Blower Influent

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Operation Time	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal		Cumulative Mass Removal		Notes
				(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	
System startup on 3/16/00 at 16:00.													
3/16/00	16:45	5.6	0%	4.5	4.1	35	2,000+	**860**	1.8	1.9	0	0	
3/17/00	7:00	20	100%	5.2	4.7	37	94	-					
3/18/00	6:30	45	100%	5.4	4.9	38	128	-					
System shut down on 3/18/00 at 9:40. System restarted on 3/19/00 at 6:30.													
3/19/00	6:30	48	13%	6.1	5.53	38	103	-					
3/20/00	6:30	72	100%	8.6	7.7	43	145	-					
3/21/00	7:00	96	100%	4.8	4.1	60	745	-					
3/22/00	7:30	121	100%	11	10	15	173	**490**	2.5	2.6	10	11	4A
3/30/00	11:00	316	100%	20	18	45	39	-					
4/6/00	11:00	483	100%	25	17	125	42	-					
4/13/00	8:00	648	100%	21	13	150	42	**70**	0.45	0.51	43	45	4A
4/20/00	7:30	815	100%	21	13	145	43	-					
4/27/00	7:00	983	100%	16	10	150	30	-					
5/4/00	8:30	1,152	100%	16	10	150	20	-					
5/11/00	6:30	1,318	100%	14	9.0	150	20	-					
5/18/00	7:00	1,486	100%	19	12	150	38	**53**	0.32	0.34	56	60	4A
				28	18	150	38	-	0.47	0.50	-	-	
5/25/00	6:30	1,654	100%	18	12	150	19	-					
6/1/00	6:30	1,822	100%	18	11	150	34	-					
6/8/00	7:00	1,990	100%	26	16	155	27	-					
6/15/00	7:30	2,158	100%	26	16	150	28	-					
System shut down on 6/21/00 at 17:30. System restarted on 7/6/00 at 10:00.													
7/6/00	10:23	2,312	30%	142	97	130	20	**37**	1.8	2.1	72	77	4B
7/13/00	12:00	2,485	102%	122	79	145	23	**18**	0.70	1.0	81	88	4A
7/20/00	7:30	2,648	100%	115	73	150	15	-					
System shut down on 7/26/00 at 6:30. System restarted on 7/27/00 at 6:00.													
7/27/00	6:00	2,791	86%	75	49	140	14	-					
8/3/00	8:00	2,961	100%	75	49	140	15	-					
8/8/00	14:30	3,086	100%	77	50	140	15	-					
System shut down on 8/15/00 at 11:30. System restarted on 8/21/00 at 10:30.													
8/24/00	12:30	3,326	63%	76	50	140	27	-					
System shut down on 8/30/00 at 13:30. System restarted on 8/31/00 at 9:00.													
8/31/00	9:00	3,471	88%	64	45	120	36	-					

TABLE 4a

Soil Vapor Extraction Data: Blower Influent

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Operation Time	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal		Cumulative Mass Removal		Notes
				(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	
System shut down on 9/6/00 at 15:00. System restarted on 9/7/00.													
9/7/00	10:30	3,621	88%	66	46	125	9.7	-					
9/14/00	9:00	3,788	100%	66	43	140	13	**5.6**	0.12	0.29	104	124	4A
System shut down on 9/14/00 for rebound test.													
9/28/00	11:24	3,788	0%	-	-	120	42	**54**	-	-	-	-	
System shut down on 9/28/00 at 12:00. System restarted on 10/1/00 at 6:30.													
10/1/00	6:30	3,791	4%	-	-	-	-	-					
System shut down on 10/1/00 at 10:30. System restarted on 10/5/00 at 7:30.													
10/5/00	7:30	3,795	4%	73	52	120	296	-					
10/12/00	8:00	3,964	100%	74	52	120	39	-					
10/19/00	8:00	4,132	100%	72	51	120	39	-					
10/26/00	8:00	4,301	100%	75	54	115	18	**2.3**	0.061	0.15	106	128	4A
System shut down on 10/31/00 at 9:20. System restarted on 11/2/00 at 8:00.													
11/2/00	8:00	4,422	72%	-	-	140	17	-					
System shut down on 11/2/00 at 19:00. System restarted on 11/9/00 at 7:30.													
11/9/00	7:30	4,433	7%	-	-	140	397	-					
System shut down on 11/9/00 at 15:30. System restarted on 11/16/00 at 10:00.													
11/16/00	10:00	4,441	5%	-	-	140	144	-					
System shut down on 11/17/00 at 12:00. System restarted on 11/23/00 at 7:30.													
11/23/00	7:30	4,443	1%	-	-	140	152	-					
11/30/00	7:30	4,611	100%	-	-	140	121	-					
System shut down on 12/6/00 at 21:00. System restarted on 12/7/00 at 8:00.													
12/7/00	8:00	4,768	93%	-	-	140	107	-					
12/14/00	10:30	4,940	100%	57	38	140	6.2	**6.7**	0.13	0.23	108	133	4A
System shut down on 12/14/00 for rebound test.													
1/4/01	11:37	4,940	0%	170	111	140	44	**30**	-	-	-	-	

TABLE 4a

Soil Vapor Extraction Data: Blower Influent

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Operation Time	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal		Cumulative Mass Removal		
				(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	Notes
System shut down on 1/4/01. System restarted on 2/19/01 at 15:45.													
2/19/01	15:45	4,940	0%	-	-	140	42	-					
2/22/01	17:00	5,016	100%	-	-	140	37	-					
3/1/01	12:45	5,180	100%	-	-	140	29	-					
3/8/01	7:30	5,343	100%	-	-	145	48	-					
3/15/01	13:00	5,516	100%	-	-	145	8.5	-					
3/22/01	13:00	5,682	100%	-	-	145	7.8	-					
3/29/01	14:30	5,854	100%	-	-	140	8.5	-	-	-	-	-	-

NOTES:

TCE = trichloroethene
acfm = actual cubic feet per minute
°F = degrees Fahrenheit
hrs = hours
in-wc = inches of water column
lb/day = pounds per day
lbs = pounds
PID = photoionization detector
ppmv = parts per million by volume
scfm = standard cubic feet per minute
tr = trace (concentration detected at less than reporting limit)
VOCs = volatile organic compounds
- = no measurement
< = not detected at indicated method detection limit

1. PID calibrated with 100 ppmv of isobutylene.
2. Laboratory analyses were performed by Performance Analytical, Inc. in Simi Valley, California using EPA Method TO-14A.
3. Removal rates are calculated using analyte concentrations from laboratory analyses and the measured flow rate (converted from acfm to scfm using the measured vacuum).
4. Cumulative mass removal amounts are calculated as follows (see Notes column in table):
   A: Mass removal calculated using an average of the previous and current mass removal rates.
   B: Mass removal calculated using the previous mass removal rate.
5. On days for which two flow and vacuum readings are provided, the values indicate initial and final readings during the site visit.
6. Although not shown on this table, mass removal rates were calculated for each VOC detected in the samples of undiluted blower influent. The total VOC mass removal rate presented in this table is the sum of the undiluted mass removal rates calculated for each VOC that was detected.

TABLE 4b

Soil Vapor Extraction Data: Extraction Well SVE-1

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal Rates		Cumulative Mass Removal		
			(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	Notes
Static vapor sample collected on 3/16/00.												
3/16/00	9:25	5.6	0.04	0.04	35	865	**10,000**	0.18	0.19	0	0	
System startup on 3/16/00 at 16:00.												
3/17/00	7:00	20	0.04	0.04	37	191	-					
3/18/00	6:30	45	0.06	0.05	38	195	-					
System shut down on 3/18/00 at 9:40. System restarted on 3/19/00 at 6:30.												
3/19/00	6:30	48	0.70	0.63	38	2,000+	-					
3/20/00	6:30	72	0.63	0.56	43	2,000+	-					
3/21/00	7:00	96	0.61	0.52	60	2,000+	-					
3/22/00	7:30	121	0.58	0.56	15	2,000+	**10,000**	2.8	2.9	7.1	7.3	4A
3/30/00	11:00	316	0.87	0.79	38	1,799	-					
4/6/00	11:00	483	0.45	0.31	125	719	-					
4/13/00	8:00	648	0.85	0.54	150	716	**6,500**	1.7	1.8	57	58	4A
4/20/00	7:30	815	0.70	0.45	145	868	-					
4/27/00	7:00	983	0.87	0.55	150	915	-					
5/4/00	8:30	1,152	0.89	0.56	150	1,427	-					
5/11/00	6:30	1,318	0.92	0.58	150	2,000+	-					
5/18/00	7:00	1,486	1.1	0.68	150	276	**3,700**	1.2	1.3	109	112	4A
			1.1	0.69	150	276	-	1.3	1.3	-	-	
5/25/00	6:30	1,654	1.3	0.84	150	146	-					
6/1/00	6:30	1,822	0.65	0.41	150	128	-					
6/8/00	7:00	1,990	0.67	0.41	155	112	-					
6/15/00	7:30	2,158	0.65	0.41	150	105	-					
System shut down on 6/21/00 at 17:30. Static vapor sample collected on 7/6/00.												
7/6/00	9:49	2,312	1.3	0.89	130	1,582	**3,300**	-	-	-	-	
System restarted on 7/6/00 at 10:00.												
7/13/00	12:00	2,485	1.3	0.84	145	2,000+	**2,200**	0.92	0.95	154	159	4A
7/20/00	7:30	2,648	1.3	0.83	150	154	-					
System shut down on 7/26/00 at 6:30. System restarted on 7/27/00 at 6:00.												
7/27/00	6:00	2,791	2.0	1.3	140	77	-					
8/3/00	8:00	2,961	2.1	1.4	140	89	-					
8/8/00	14:30	3,086	2.1	1.4	140	92	-					
System shut down on 8/15/00 at 11:30. System restarted on 8/21/00 at 10:30.												

TABLE 4b

Soil Vapor Extraction Data: Extraction Well SVE-1

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal Rates		Cumulative Mass Removal		
			(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	Notes
8/24/00	12:30	3,326	2.3	1.5	140	622	-					
System shut down on 8/30/00 at 13:30. System restarted on 8/31/00 at 9:00.												
8/31/00	9:00	3,471	0.96	0.68	120	1,820	-					
System shut down on 9/6/00 at 15:00. System restarted on 9/7/00.												
9/7/00	10:30	3,621	1.1	0.78	125	62	-					
9/14/00	9:00	3,788	1.6	1.0	140	76	**300**	0.15	0.16	183	189	4A
System shut down on 9/14/00 for rebound test. Static vapor sample collected on 9/28/00.												
9/28/00	11:07	3,788	1.6	1.1	120	2,000+	**230**	-	-	-	-	
System shut down on 9/28/00 at 12:00. System restarted on 10/1/00 at 6:30.												
10/1/00	6:30	3,791	-	-	-	-	-					
System shut down on 10/1/00 at 10:30. System restarted on 10/5/00 at 7:30.												
10/5/00	7:30	3,795	2.3	1.6	120	2,000+	-					
10/12/00	8:00	3,964	2.4	1.7	120	1,687	-					
10/19/00	8:00	4,132	2.4	1.7	120	651	-					
10/26/00	8:00	4,301	2.4	1.7	115	385	**140**	0.12	0.12	186	192	4A
System shut down on 10/31/00 at 9:20. System restarted on 11/2/00 at 8:00.												
11/2/00	8:00	4,422	3.6	2.4	140	289	-					
System shut down on 11/2/00 at 19:00. System restarted on 11/9/00 at 7:30.												
11/9/00	7:30	4,433	2.5	1.6	140	2,000+	-					
System shut down on 11/9/00 at 15:30. System restarted on 11/16/00 at 10:00.												
11/16/00	10:00	4,441	2.7	1.7	140	2,000+	-					
System shut down on 11/17/00 at 12:00. System restarted on 11/23/00 at 7:30.												
11/23/00	7:30	4,443	2.5	1.7	140	2,000+	-					
11/30/00	7:30	4,611	12.4	8.1	140	748	-					
System shut down on 12/6/00 at 21:00. System restarted on 12/7/00 at 8:00.												
12/7/00	8:00	4,768	8.3	5.4	140	111	-					
12/14/00	10:30	4,940	2.4	1.6	140	43	**260**	0.21	0.22	191	197	4A
System shut down on 12/14/00 for rebound test.												
1/4/01	11:02	4,940	2.3	1.6	120	515	**350**	-	-	-	-	

TABLE 4b

Soil Vapor Extraction Data: Extraction Well SVE-1

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal Rates		Cumulative Mass Removal		
			(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	Notes
System shut down on 1/4/01. System restarted on 2/19/01 at 15:45.												
2/19/01	15:45	4,940	2.5	1.6	140	875	-					
2/22/01	17:00	5,016	2.6	1.7	140	801	-					
3/1/01	12:45	5,180	2.5	1.7	140	1,505	-					
3/8/01	7:30	5,343	2.5	1.6	145	79	-					
3/15/01	13:00	5,516	2.5	1.6	145	37	-					
3/22/01	13:00	5,682	2.6	1.6	145	53	-					
3/29/01	14:30	5,854	2.3	1.6	130	38	-	-	-	-	-	

NOTES:

TCE = trichloroethene
acfm = actual cubic feet per minute
°F = degrees Fahrenheit
hrs = hours
in-wc = inches of water column
lb/day = pounds per day
lbs = pounds
PID = photoionization detector
ppmv = parts per million by volume
scfm = standard cubic feet per minute
tr = trace (concentration detected at less than reporting limit)
VOCs = volatile organic compounds
- = no measurement
< = not detected at indicated method detection limit

1. PID calibrated with 100 ppmv of isobutylene.
2. Laboratory analyses were performed by Performance Analytical, Inc. in Simi Valley, California using EPA Method TO-14A.
3. Removal rates are calculated using analyte concentrations from laboratory analyses and the measured flow rate (converted from acfm to scfm using the measured vacuum).
4. Cumulative mass removal amounts are calculated as follows:
   A: Mass removal calculated using an average of the previous and current mass removal rates.
5. On days for which two flow and vacuum readings are provided, the values indicate initial and final readings during the site visit.
6. Although not shown on this table, mass removal rates were calculated for each VOC detected in the samples collected from well SVE-1. The total VOC mass removal rate presented in this table is the sum of the mass removal rates calculated for each VOC that was detected.
7. Extraction well SVE-1 is screened in the shallow vadose zone from 19 to 25 feet below ground surface.

TABLE 4c

Soil Vapor Extraction Data: Extraction Well SVE-2

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal Rates		Cumulative Mass Removal		
			(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	Notes
Static vapor sample collected on 3/16/00.												
3/16/00	10:10	5.6	0.61	0.56	35	227	**75**	0.021	0.021	0	0	
System Startup on 3/16/00 at 16:00.												
3/17/00	7:00	20.3	0.61	0.55	37	191	-					
3/18/00	6:30	44.7	0.61	0.55	38	33	-					
System shut down on 3/18/00 at 9:40. System restarted on 3/19/00 at 6:30.												
3/19/00	6:30	47.9	0.65	0.59	38	298	-					
3/20/00	6:30	72.2	0.94	0.84	43	235	-					
3/21/00	7:00	96.3	0.89	0.76	60	227	-					
3/22/00	7:30	120.5	0.57	0.55	15	93	-					
3/30/00	11:00	316	0.59	0.53	38	78	-					
4/6/00	11:00	483	0.74	0.51	125	38	-					
4/13/00	8:00	648	2.5	1.6	150	26	-					
4/20/00	7:30	815	1.1	0.71	145	5.4	-					
4/27/00	7:00	983	2.4	1.5	150	2.7	-					
5/4/00	8:30	1,152	2.3	1.5	150	5.8	-					
5/11/00	6:30	1,318	2.2	1.4	150	5.2	-					
5/18/00	7:00	1,486	2.2	1.4	150	13	-					
			2.0	1.3	150	13	-					
5/25/00	6:30	1,654	2.1	1.3	150	6.8	-					
6/1/00	6:30	1,822	2.1	1.3	150	28	-					
6/8/00	7:00	1,990	2.1	1.3	155	42	-					
6/15/00	7:30	2,158	2.1	1.3	150	38	-					
System shut down on 6/21/00 at 17:30. Static vapor sample collected on 7/6/00.												
7/6/00	9:25	2,312	1.2	0.83	130	37	**120**	0.050	0.054	3.4	3.6	4A
System restarted on 7/6/00 at 10:00.												
7/13/00	12:00	2,485	1.3	0.80	145	6.8	-					
7/20/00	7:30	2,648	1.3	0.80	150	27	-					
System shut down on 7/26/00 at 6:30. System restarted on 7/27/00 at 6:00.												
7/27/00	6:00	2,791	1.6	1.1	140	18	-					
8/3/00	7:30	2,961	1.6	1.0	140	17	-					
8/8/00	14:30	3,086	1.6	1.0	140	14	-					
System shut down on 8/15/00 at 11:30. System restarted on 8/21/00 at 10:30.												
8/24/00	12:30	3,326	1.9	1.2	140	1.7	-					

TABLE 4c

Soil Vapor Extraction Data: Extraction Well SVE-2

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal Rates		Cumulative Mass Removal		
			(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	Notes
System shut down on 8/30/00 at 13:30. System restarted on 8/31/00 at 9:00.												
8/31/00	9:00	3,471	1.5	1.1	120	22	-					
System shut down on 9/6/00 at 15:00. System restarted on 9/7/00.												
9/7/00	10:30	3,621	1.6	1.1	125	16	-					
9/14/00	9:00	3,788	1.6	1.1	140	20	**77**	0.041	0.042	6.2	6.5	4A
System shut down on 9/14/00 for rebound test. Static vapor sample collected on 9/28/00.												
9/28/00	10:50	3,788	1.4	1.0	120	61	**110**	-	-	-	-	
System shut down on 9/28/00 at 12:00. System restarted on 10/1/00 at 6:30.												
10/1/00	6:30	3,791	-	-	-	-	-					
System shut down on 10/1/00 at 10:30. System restarted on 10/5/00 at 7:30.												
10/5/00	7:30	3,795	1.9	1.4	120	9.7	-					
10/12/00	8:00	3,964	1.9	1.4	120	97	-					
10/19/00	8:00	4,132	1.9	1.3	120	33	-					
10/26/00	8:00	4,301	2.1	1.5	115	28	-					
System shut down on 10/31/00 at 9:20. System restarted on 11/2/00 at 8:00.												
11/2/00	8:00	4,422	-	-	140	6.0	-					
System shut down on 11/2/00 at 19:00. System restarted on 11/9/00 at 7:30.												
11/9/00	7:30	4,433	-	-	140	8.2	-					
System shut down on 11/9/00 at 15:30. System restarted on 11/16/00 at 10:00.												
11/16/00	10:00	4,441	-	-	140	810	-					
System shut down on 11/17/00 at 12:00. System restarted on 11/23/00 at 7:30.												
11/23/00	7:30	4,443	-	-	140	7.5	-					
11/30/00	7:30	4,611	-	-	140	5.3	-					
System shut down on 12/6/00 at 21:00. System restarted on 12/7/00 at 8:00.												
12/7/00	8:00	4,768	-	-	140	40	-					
12/14/00	10:30	4,940	2.9	1.9	140	9.7	**29**	0.027	0.029	7.8	8.2	4A
System shut down on 12/14/00 for rebound test.												
1/4/01	10:20	4,940	1.9	1.3	120	25	**34**	-	-	-	-	

TABLE 4c

Soil Vapor Extraction Data: Extraction Well SVE-2

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal Rates		Cumulative Mass Removal		
			(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	Notes
System shut down on 1/4/01. System restarted on 2/19/01 at 15:45.												
2/19/01	15:45	4,940	-	-	140	38	-					
2/22/01	17:00	5,016	-	-	140	46	-					
3/1/01	12:45	5,180	-	-	140	61	-					
3/8/01	7:30	5,343	-	-	145	33	-					
3/15/01	13:00	5,516	-	-	145	5.8	-					
3/22/01	13:00	5,682	-	-	145	3.7	-					
3/29/01	14:30	5,854	-	-	140	7.5	-	-	-	-	-	

NOTES:

TCE = trichloroethene
acfm = actual cubic feet per minute
°F = degrees Fahrenheit
hrs = hours
in-wc = inches of water column
lb/day = pounds per day
lbs = pounds
PID = photoionization detector
ppmv = parts per million by volume
scfm = standard cubic feet per minute
tr = trace (concentration detected at less than reporting limit)
VOCs = volatile organic compounds
- = no measurement
< = not detected at indicated method detection limit

1. PID calibrated with 100 ppmv of isobutylene.
2. Laboratory analyses were performed by Performance Analytical, Inc. in Simi Valley, California using EPA Method TO-14A.
3. Removal rates are calculated using analyte concentrations from laboratory analyses and the measured flow rate (converted from acfm to scfm using the measured vacuum).
4. Cumulative mass removal amounts are calculated as follows:
   A: Mass removal calculated using an average of the previous and current mass removal rates.
5. On days for which two flow and vacuum readings are provided, the values indicate initial and final readings during the site visit.
6. Although not shown on this table, mass removal rates were calculated for each VOC detected in the samples collected from well SVE-2. The total VOC mass removal rate presented in this table is the sum of the mass removal rates calculated for each VOC that was detected.
7. Extraction well SVE-2 is screened in the shallow vadose zone from 18 to 24 feet below ground surface.

TABLE 4d

Soil Vapor Extraction Data: Extraction Well SVE-3

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Flow (acfm)	Flow (scfm)	Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal Rates: TCE (lb/day)	Estimated VOC Removal Rates: Total VOCs (lb/day)	Cumulative Mass Removal: TCE (lbs)	Cumulative Mass Removal: Total VOCs (lbs)	Notes
Static vapor sample collected on 3/16/00.												
3/16/00	9:57	5.6	0.41	0.37	35	31	**25**	0.0047	0.0054	0	0	
System Startup on 3/16/00 at 16:00.												
3/17/00	7:00	20.3	0.98	0.89	37	6.1	-					
3/18/00	6:30	44.7	0.98	0.89	38	8.3	-					
System shut down on 3/18/00 at 9:40. System restarted on 3/19/00 at 6:30.												
3/19/00	6:30	47.9	0.98	0.89	38	45	-					
3/20/00	6:30	72.2	0.98	0.88	43	7.4	-					
3/21/00	7:00	96.3	1.0	0.85	60	11	-					
3/22/00	7:30	120.5	0.95	0.91	15	10	-					
3/30/00	11:00	316.0	0.76	0.69	38	29	-					
4/6/00	11:00	483.0	1.6	1.1	125	25	-					
4/13/00	8:00	648.0	2.1	1.3	150	22	-					
4/20/00	7:30	815.0	1.7	1.1	145	6.8	-					
4/27/00	7:00	983.0	1.2	0.78	150	4.3	-					
5/4/00	8:30	1,152.0	1.6	0.98	150	2.8	-					
5/11/00	6:30	1,318.0	1.6	1.0	150	2.2	-					
5/18/00	7:00	1,486.0	1.6	0.98	150	9.0	-					
			1.6	0.98	150	9.0	-					
5/25/00	6:30	1,654.0	1.6	0.99	150	4.2	-					
6/1/00	6:30	1,822.0	1.5	0.95	150	7.5	-					
6/8/00	7:00	1,990.0	1.4	0.88	155	5.2	-					
6/15/00	7:30	2,158.0	1.4	0.90	150	4.9	-					
System shut down on 6/21/00 at 17:30. Static vapor sample collected on 7/6/00.												
7/6/00	8:46	2,312	2.3	1.5	130	7.3	**7.4**	0.0057	0.0095	0.50	0.71	4A
System restarted on 7/6/00 at 10:00.												
7/13/00	12:00	2,485	2.3	1.5	145	3.5	-					
7/20/00	7:30	2,648	2.2	1.4	150	4.1	-					
System shut down on 7/26/00 at 6:30. System restarted on 7/27/00 at 6:00.												
7/27/00	6:00	2,791	1.9	1.3	140	5.1	-					
8/3/00	8:00	2,961	1.9	1.2	140	2.2	-					
8/8/00	14:30	2,961	1.9	1.3	140	2.3	-					
System shut down on 8/15/00 at 11:30. System restarted on 8/21/00 at 10:30.												
8/24/00	12:30	3,326	2.0	1.3	140	1.9	-					

TABLE 4d

Soil Vapor Extraction Data: Extraction Well SVE-3

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal Rates		Cumulative Mass Removal		
			(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	Notes
	System shut down on 8/30/00 at 13:30. System restarted on 8/31/00 at 9:00.											
8/31/00	9:00	3,471	1.4	1.0	120	2.6	-					
	System shut down on 9/6/00 at 15:00. System restarted on 9/7/00.											
9/7/00	10:30	3,621	1.4	1.0	125	1.2	-					
9/14/00	9:00	3,788	1.5	1.0	140	1.5	**2.5**	0.0012	0.0028	0.71	1.1	4A
	System shut down on 9/14/00 for rebound test. Static vapor sample collected on 9/28/00.											
9/28/00	9:52	3,788	-	-	120	8.0	**3.8**	-	-	-	-	
	System shut down on 9/28/00 at 12:00. System restarted on 10/1/00 at 6:30.											
10/1/00	6:30	3,791	-	-	-	-	-					
	System shut down on 10/1/00 at 10:30. System restarted on 10/5/00 at 7:30.											
10/5/00	7:30	3,795	1.8	1.3	120	4.6	-					
10/12/00	8:00	3,964	1.9	1.3	120	5.6	-					
10/19/00	8:00	4,132	1.9	1.3	120	4.1	-					
10/26/00	8:00	4,301	1.9	1.3	115	4.1	-					
	System shut down on 10/31/00 at 9:20. System restarted on 11/2/00 at 8:00.											
11/2/00	8:00	4,422	7.1	4.7	140	0.5	-					
	System shut down on 11/2/00 at 19:00. System restarted on 11/9/00 at 7:30.											
11/9/00	7:30	4,433	1.9	1.3	140	25.2	-					
	System shut down on 11/9/00 at 15:30. System restarted on 11/16/00 at 10:00.											
11/16/00	10:00	4,441	-	-	140	8.9	-					
	System shut down on 11/17/00 at 12:00. System restarted on 11/23/00 at 7:30.											
11/23/00	7:30	4,443	-	-	140	11.9	-					
11/30/00	7:30	4,611	5.6	3.6	140	6.2	-					
	System shut down on 12/6/00 at 21:00. System restarted on 12/7/00 at 8:00.											
12/7/00	8:00	4,768	-	-	140	14.4	-					
12/14/00	10:30	4,940	2.3	1.5	140	1.2	**1.2**	0.00089	0.0023	0.76	1.2	4A
	System shut down on 12/14/00 for rebound test.											
1/4/01	9:45	4,940	2.1	1.5	120	1.5	**1.3**	-	-	-	-	

TABLE 4d

Soil Vapor Extraction Data: Extraction Well SVE-3

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal Rates		Cumulative Mass Removal		
			(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	Notes
System shut down on 1/4/01. System restarted on 2/19/01 at 15:45.												
2/19/01	15:45	4,940	3.8	2.5	140	6.0	-					
2/22/01	17:00	5,016	3.4	2.2	140	6.4	-					
3/1/01	12:45	5,180	2.6	1.7	140	6.3	-					
3/8/01	7:30	5,343	2.6	1.7	145	0.0	-					
3/15/01	13:00	5,516	2.6	1.7	145	0.5	-					
3/22/01	13:00	5,682	2.6	1.7	145	3.3	-					
3/29/01	14:30	5,854	2.7	1.7	140	8.3	-	-	-	-	-	

NOTES:

TCE = trichloroethene
acfm = actual cubic feet per minute
°F = degrees Fahrenheit
hrs = hours
in-wc = inches of water column
lb/day = pounds per day
lbs = pounds
PID = photoionization detector
ppmv = parts per million by volume
scfm = standard cubic feet per minute
tr = trace (concentration detected at less than reporting limit)
VOCs = volatile organic compounds
- = no measurement
< = not detected at indicated method detection limit

1. PID calibrated with 100 ppmv of isobutylene.
2. Laboratory analyses were performed by Performance Analytical, Inc. in Simi Valley, California using EPA Method TO-14A.
3. Removal rates are calculated using analyte concentrations from laboratory analyses and the measured flow rate (converted from acfm to scfm using the measured vacuum).
4. Cumulative mass removal amounts are calculated as follows:
   A: Mass removal calculated using an average of the previous and current mass removal rates.
5. On days for which two flow and vacuum readings are provided, the values indicate initial and final readings during the site visit.
6. Although not shown on this table, mass removal rates were calculated for each VOC detected in the samples collected from well SVE-3. The total VOC mass removal rate presented in this table is the sum of the mass removal rates calculated for each VOC that was detected.
7. Extraction well SVE-3 is screened in the shallow vadose zone from 19 to 25 feet below ground surface.

TABLE 4e

Soil Vapor Extraction Data: Extraction Well SVE-D1

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal Rates		Cumulative Mass Removal		Notes
			(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	
	Static vapor sample collected on 3/16/00.											
3/16/00	8:57	5.6	3.7	3.6	6.0	1,580	**1,000**	1.8	1.9	0	0	
	System startup on 3/16/00 at 16:00.											
3/17/00	7:00	20.3	4.6	4.5	10	92	-					
3/18/00	6:30	44.7	5.3	5.2	10	131	-					
	System shut down on 3/18/00 at 9:40. System restarted on 3/19/00 at 6:30.											
3/19/00	6:30	48	0.0	0.0	0.0	30	0					
3/20/00	6:30	72	5.8	5.7	9.0	164	0					
3/21/00	7:00	96	2.6	2.6	7.0	560	0					
3/22/00	7:30	121	8.9	8.6	15	70	**440**	1.9	2.0	8.8	9.1	4A
3/30/00	11:00	316	24	22	38	36	0					
4/6/00	11:00	483	25	17	125	30	0					
4/13/00	8:00	648	33	21	150	33	**25**	0.26	0.28	32	34	4A
4/20/00	7:30	815	28	18	145	28	0					
4/27/00	7:00	983	18	16	40	25	0					
5/4/00	8:30	1,152	16	10	135	20	0					
5/11/00	6:30	1,318	13	9.7	95	13	0					
5/18/00	7:00	1,486	20	14	120	37	**8.6**	0.061	0.070	38	40	4A
			26	17	150	37	-	0.071	0.081	-	-	
5/25/00	6:30	1,654	18	11	150	16	-					
6/1/00	6:30	1,822	16	10	150	31	-					
6/8/00	7:00	1,990	21	13	155	31	-					
6/15/00	7:30	2,158	21	13	150	31	-					
	System shut down on 6/21/00 at 17:30. Static vapor sample collected on 7/6/00.											
7/6/00	9:34	2,312	0	0	0	30	**92**	-	-	-	-	
	System restarted on 7/6/00 at 10:00.											
7/13/00	12:00	2,485	34	22	145	37	**5.1**	0.056	0.25	40	47	4A
7/20/00	7:30	2,648	32	20	150	27	-					
	System shut down on 7/26/00 at 6:30. System restarted on 7/27/00 at 6:00.											
7/27/00	6:00	2,791	26	17	140	9.4	-					
8/3/00	8:00	2,961	26	17	140	1.5	-					
8/8/00	14:30	3,086	26	17	140	1.8	-					
	System shut down on 8/15/00 at 11:30. System restarted on 8/21/00 at 10:30.											

TABLE 4e

Soil Vapor Extraction Data: Extraction Well SVE-D1

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal Rates		Cumulative Mass Removal		
			(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	Notes
8/24/00	12:30	3,226	27	18	140	17	-					
System shut down on 8/30/00 at 13:30. System restarted on 8/31/00 at 9:00.												
8/31/00	9:00	3,471	21	15	120	8.9	-					
System shut down on 9/6/00 at 15:00. System restarted on 9/7/00.												
9/7/00	10:30	3,621	22	15	125	5.8	-					
9/14/00	9:00	3,788	20	13	140	24	**4.0**	0.026	0.23	43	60	4A
System shut down on 9/14/00 for rebound test. Static vapor sample collected on 9/28/00.												
9/28/00	10:25	3,788	52	36	120	62	**120**	-	-	-	-	
System shut down on 9/28/00 at 12:00. System restarted on 10/1/00 at 6:30.												
10/1/00	6:30	3,791	-	-	-	-	-					
System shut down on 10/1/00 at 10:30. System restarted on 10/5/00 at 7:30.												
10/5/00	7:30	3,795	29	21	120	41	-					
10/12/00	8:00	3,964	28	20	120	72	-					
10/19/00	8:00	4,132	19	14	120	6.2	-					
10/26/00	8:00	4,301	20	14	115	5.8	**2.4**	0.017	0.081	43	63	4A
System shut down on 10/31/00 at 9:20. System restarted on 11/2/00 at 8:00.												
11/2/00	8:00	4,422	22	15	140	1.5	-					
System shut down on 11/2/00 at 19:00. System restarted on 11/9/00 at 7:30.												
11/9/00	7:30	4,433	22	15	140	4.9	-					
System shut down on 11/9/00 at 15:30. System restarted on 11/16/00 at 10:00.												
11/16/00	10:00	4,441	24	15	140	38	-					
System shut down on 11/17/00 at 12:00. System restarted on 11/23/00 at 7:30.												
11/23/00	7:30	4,443	24	16	140	29	-					
11/30/00	7:30	4,611	-	-	140	23	-					
System shut down on 12/6/00 at 21:00. System restarted on 12/7/00 at 8:00.												
12/7/00	8:00	4,768	-	-	140	12	-					
12/14/00	10:30	4,940	16	11	140	3.1	**2.7**	0.014	0.025	44	64	4A
System shut down on 12/14/00 for rebound test.												
1/4/01	10:48	4,940	74	52	120	43	**41**	-	-	-	-	

TABLE 4e

Soil Vapor Extraction Data: Extraction Well SVE-D1

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal Rates		Cumulative Mass Removal		
			(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	Notes
System shut down on 1/4/01. System restarted on 2/19/01 at 15:45.												
2/19/01	15:45	4,940	23	15	140	43	-					
2/22/01	17:00	5,016	24	15	140	37	-					
3/1/01	12:45	5,180	24	15	140	81	-					
3/8/01	7:30	5,343	23	15	145	103	-					
3/15/01	13:00	5,516	22	14	145	9.4	-					
3/22/01	13:00	5,682	21	14	145	12	-					
3/29/01	14:30	5,854	21	14	130	10	-	-	-	-	-	

NOTES:

TCE = trichloroethene
acfm = actual cubic feet per minute
°F = degrees Fahrenheit
hrs = hours
in-wc = inches of water column
lb/day = pounds per day
lbs = pounds
PID = photoionization detector
ppmv = parts per million by volume
scfm = standard cubic feet per minute
tr = trace (concentration detected at less than reporting limit)
VOCs = volatile organic compounds
- = no measurement
< = not detected at indicated method detection limit

1. PID calibrated with 100 ppmv of isobutylene.
2. Laboratory analyses were performed by Performance Analytical, Inc. in Simi Valley, California using EPA Method TO-14A.
3. Removal rates are calculated using analyte concentrations from laboratory analyses and the measured flow rate (converted from acfm to scfm using the measured vacuum).
4. Cumulative mass removal amounts are calculated as follows:
   A: Mass removal calculated using an average of the previous and current mass removal rates.
5. On days for which two flow and vacuum readings are provided, the values indicate initial and final readings during the site visit.
6. Although not shown on this table, mass removal rates were calculated for each VOC detected in the samples collected from well SVE-D1. The total VOC mass removal rate presented in this table is the sum of the mass removal rates calculated for each VOC that was detected.
7. Extraction well SVE-D1 is screened in the shallow vadose zone from 30 to 40 feet below ground surface.

TABLE 4f

Soil Vapor Extraction Data:

Monitoring/Extraction Well VMP-D1

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal Rates		Cumulative Mass Removal		
			(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	Notes
Static vapor sample collected on 3/16/00.												
3/16/00	10:32	5.6	0	0	0	282	**460**					
System startup on 3/16/00 at 16:00 with VMP-D1 used as a monitoring well.												
4/6/00	11:00	483	0	0	0	3.5	-					
4/13/00	8:00	648	0	0	0	23	-					
System shut down on 6/21/00 at 17:30. Static vapor sample collected on 7/6/00.												
7/6/00	8:57	2,312	35	24	130	30	**9.4**	0.11	0.12	0	0	
System restarted on 7/6/00 at 10:00 with VMP-D1 operating as an extraction well.												
7/13/00	12:00	2,485	33	21	145	3.6	0					
7/20/00	7:30	2,648	34	22	150	3.2	-					
7/27/00	6:00	2,791	26	17	140	9.4	-					
8/3/00	8:00	2,961	25	16	140	1.5	-					
8/8/00	14:30	3,086	24	16	140	1.6	-					
System shut down on 8/15/00 at 11:30. System restarted on 8/21/00 at 10:30.												
8/24/00	12:30	3,326	22	15	140	2.1	-					
System shut down on 8/30/00 at 13:30. System restarted on 8/31/00 at 9:00.												
8/31/00	9:00	3,471	19	14	120	0.9	-					
System shut down on 9/6/00 at 15:00. System restarted on 9/7/00.												
9/7/00	10:30	3,621	20	14	125	0.2	-					
9/14/00	9:00	3,788	20	-	140	1.2	**1.4**	0.0090	0.012	3.7	4.2	4A
System shut down on 9/14/00 for rebound test. Static vapor sample collected on 9/28/00.												
9/28/00	10:08	3,788	59	41	120	6.3	**8.6**	-	-	-	-	
System shut down on 9/28/00 at 12:00. System restarted on 10/1/00 at 6:30.												
10/1/00	6:30	3,791	-	-	-	-	-					
System shut down on 10/1/00 at 10:30. System restarted on 10/5/00 at 7:30.												
10/5/00	7:30	3,795	25	18	120	8.4	-					
10/12/00	8:00	3,964	24	17	120	6.7	-					
10/19/00	8:00	4,132	25	17	120	9.4	-					
10/26/00	8:00	4,301	22	16	115	24	-					
System shut down on 10/31/00 at 9:20. System restarted on 11/2/00 at 8:00.												

TABLE 4f

Soil Vapor Extraction Data:

Monitoring/Extraction Well VMP-D1

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal Rates		Cumulative Mass Removal		
			(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	Notes
11/2/00	8:00	4,422	26	17	140	0	-					
System shut down on 11/2/00 at 19:00. System restarted on 11/9/00 at 7:30.												
11/9/00	7:30	4,433	-	-	140	59	-					
System shut down on 11/9/00 at 15:30. System restarted on 11/16/00 at 10:00.												
11/16/00	10:00	4,441	64	42	140	8.6	-					
System shut down on 11/17/00 at 12:00. System restarted on 11/23/00 at 7:30.												
11/23/00	7:30	4,443	60	40	140	87.4	-					
11/30/00	7:30	4,611	39	26	140	27.9	-					
System shut down on 12/6/00 at 21:00. System restarted on 12/7/00 at 8:00.												
12/7/00	8:00	4,768	42	27	140	29.3	-					
12/14/00	10:30	4,940	15	10	140	0.3	**0.95**	0.0047	0.0065	4.0	4.6	4A
System shut down on 12/14/00 for rebound test.												
1/4/01	9:57	4,940	76	53	120	0.6	**1.6**	-	-	-	-	
System shut down on 1/4/01. System restarted on 2/19/01 at 15:45.												
2/19/01	15:45	4,940	22	15	140	1.2	-					
2/22/01	17:00	5,016	23	15	140	0.0	-					
3/1/01	12:45	5,180	18	12	140	0.0	-					
3/8/01	7:30	5,343	19	12	145	0.0	-					
3/15/01	13:00	5,516	18	12	145	0.8	-					
3/22/01	13:00	5,682	19	12	145	0.2	-					
3/29/01	14:30	5,854	19	13	140	0.6	-					

TABLE 4f

Soil Vapor Extraction Data:
Monitoring/Extraction Well VMP-D1

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal Rates		Cumulative Mass Removal		
			(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	Notes

NOTES:

TCE = trichloroethene
acfm = actual cubic feet per minute
°F = degrees Fahrenheit
hrs = hours
in-wc = inches of water column
lb/day = pounds per day
lbs = pounds
PID = photoionization detector
ppmv = parts per million by volume
scfm = standard cubic feet per minute
tr = trace (concentration detected at less than reporting limit)
VOCs = volatile organic compounds
- = no measurement
< = not detected at indicated method detection limit

1. PID calibrated with 100 ppmv of isobutylene.
2. Laboratory analyses were performed by Performance Analytical, Inc. in Simi Valley, California using EPA Method TO-14A.
3. Removal rates are calculated using analyte concentrations from laboratory analyses and the measured flow rate (converted from acfm to scfm using the measured vacuum).
4. Cumulative mass removal amounts are calculated as follows:
   A: Mass removal calculated using an average of the previous and current mass removal rates.
5. Well VMP-D1 was first used as an extraction well on 6 July 2000.
6. Although not shown on this table, mass removal rates were calculated for each VOC detected in the samples collected from well VMP-D1. The total VOC mass removal rate presented in this table is the sum of the mass removal rates calculated for each VOC that was detected.
7. Extraction well VMP-D1 is screened in the deep vadose zone from 30 to 40 feet below ground surface.

TABLE 4g
Soil Vapor Extraction Data:
Monitoring/Extraction Well VMP-D2

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Flow (acfm)	Flow (scfm)	Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal Rates: TCE (lb/day)	Estimated VOC Removal Rates: Total VOCs (lb/day)	Cumulative Mass Removal: TCE (lbs)	Cumulative Mass Removal: Total VOCs (lbs)	Notes
	Static vapor sample collected on 3/16/00.											
3/16/00	10:50	5.6	0	0	0	76	**39**					
	System startup on 3/16/00 at 16:00 with VMP-D2 used as a monitoring well.											
4/6/00	11:00	483	0	0	0	150	-					
4/13/00	8:00	648	0	0	0	27	-					
	System shut down on 6/21/00 at 17:30. Static vapor sample collected on 7/6/00.											
7/6/00	9:12	2,312	44	30	130	5.2	**5.7**	0.085	0.10	0	0	
	System restarted on 7/6/00 at 10:00 with VMP-D2 operating as an extraction well.											
7/13/00	12:00	2,485	41	26	145	5.8	-					
7/20/00	7:30	2,648	42	27	150	3.8	-					
7/27/00	6:00	2,791	21	14	140	8.7	-					
8/3/00	8:00	2,961	21	14	140	4.8	-					
8/8/00	14:30	3,086	22	14	140	4.3	-					
	System shut down on 8/15/00 at 11:30. System restarted on 8/21/00 at 10:30.											
8/24/00	12:30	3,326	26	17	140	8.8	-					
	System shut down on 8/30/00 at 13:30. System restarted on 8/31/00 at 9:00.											
8/31/00	9:00	3,471	18	13	120	1.5	-					
	System shut down on 9/6/00 at 15:00. System restarted on 9/7/00.											
9/7/00	10:30	3,621	17	12	125	0.6	-					
9/14/00	9:00	3,788	17	11	140	9.6	**0.71**	0.0040	0.038	2.8	4.4	4A
	System shut down on 9/14/00 for rebound test. Static vapor sample collected on 9/28/00.											
9/28/00	9:35	3,788	42	29	125	39	**9.3**	-	-	-	-	
	System shut down on 9/28/00 at 12:00. System restarted on 10/1/00 at 6:30.											
10/1/00	6:30	3,791	-	-	-	-	-					
	System shut down on 10/1/00 at 10:30. System restarted on 10/5/00 at 7:30.											
10/5/00	7:30	3,795	23	16	120	24	-					
10/12/00	8:00	3,964	26	18	120	9.1	-					
10/19/00	8:00	4,132	25	18	120	10	-					
10/26/00	8:00	4,301	19	14	115	26	-					
	System shut down on 10/31/00 at 9:20. System restarted on 11/2/00 at 8:00.											

TABLE 4g

Soil Vapor Extraction Data:

Monitoring/Extraction Well VMP-D2

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal Rates		Cumulative Mass Removal		
			(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	Notes
11/2/00	8:00	4,422	23	15	140	0	-					
System shut down on 11/2/00 at 19:00. System restarted on 11/9/00 at 7:30.												
11/9/00	7:30	4,433	-	-	140	14	-					
System shut down on 11/9/00 at 15:30. System restarted on 11/16/00 at 10:00.												
11/16/00	10:00	4,441	-	-	140	15	-					
System shut down on 11/17/00 at 12:00. System restarted on 11/23/00 at 7:30.												
11/23/00	7:30	4,443	47	31	140	63	-					
11/30/00	7:30	4,611	28	18	140	45	-					
System shut down on 12/6/00 at 21:00. System restarted on 12/7/00 at 8:00.												
12/7/00	8:00	4,768	11	7.4	140	40	-					
12/14/00	10:30	4,940	18	12	140	14	**1.3**	0.0078	0.091	3.0	7.5	4A
System shut down on 12/14/00 for rebound test.												
1/4/01	9:57	4,940	78	55	120	3.4	**3.0**	-	-	-	-	
System shut down on 1/4/01. System restarted on 2/19/01 at 15:45.												
2/19/01	15:45	4,940	21	14	140	73.4	-					
2/22/01	17:00	5,016	21	14	140	81.9	-					
3/1/01	12:45	5,180	20	13	140	185.4	-					
3/8/01	7:30	5,343	22	14	145	153.3	-					
3/15/01	13:00	5,516	24	15	145	5.2	-					
3/22/01	13:00	5,682	15	10	145	3.2	-					
3/29/01	14:30	5,854	19	13	140	2.6	-					

TABLE 4g
Soil Vapor Extraction Data:
Monitoring/Extraction Well VMP-D2

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal Rates		Cumulative Mass Removal		
			(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	Notes

NOTES:

TCE = trichloroethene
acfm = actual cubic feet per minute
°F = degrees Fahrenheit
hrs = hours
in-wc = inches of water column
lb/day = pounds per day
lbs = pounds
PID = photoionization detector
ppmv = parts per million by volume
scfm = standard cubic feet per minute
tr = trace (concentration detected at less than reporting limit)
VOCs = volatile organic compounds
- = no measurement
< = not detected at indicated method detection limit

1. PID calibrated with 100 ppmv of isobutylene.
2. Laboratory analyses were performed by Performance Analytical, Inc. in Simi Valley, California using EPA Method TO-14A.
3. Removal rates are calculated using analyte concentrations from laboratory analyses and the measured flow rate (converted from acfm to scfm using the measured vacuum).
4. Cumulative mass removal amounts are calculated as follows:
   A: Mass removal calculated using an average of the previous and current mass removal rates.
5. Well VMP-D1 was first used as an extraction well on 6 July 2000.
6. Although not shown on this table, mass removal rates were calculated for each VOC detected in the samples collected from well VMP-D2. The total VOC mass removal rate presented in this table is the sum of the mass removal rates calculated for each VOC that was detected.
7. Extraction well VMP-D2 is screened in the deep vadose zone from 30 to 40 feet below ground surface.

TABLE 4h

Soil Vapor Extraction Data:

Monitoring/Extraction Well VMP-1

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal Rates		Cumulative Mass Removal		Notes
			(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	
	Static vapor sample collected on 3/16/00.											
3/16/00	11:35	5.6	0	0	0	65	**29**	-	-	-	-	
	System startup on 3/16/00 at 16:00 with VMP-1 used as a monitoring well.											
4/6/00	11:00	483.0	0	0	0	6.4	-					
4/13/00	8:00	648.0	0	0	0	8.2	-					
	Static vapor sample collected on 7/6/00.											
7/6/00	8:06	2,312.0	0	0	0	0.0	**0.13**	-	-	-	-	
	Vapor sample collected on 9/14/00.											
9/14/00	11:08	3,788.0	0	0	0	0.5	**0.29**	-	-	-	-	
	Static vapor sample collected on 9/28/00.											
9/28/00	8:51	3,788.0	0	0	0	1.3	**0.47**	-	-	-	-	
10/26/00	8:00	4,301.0	0	0	0	13	-					
	Static vapor sample collected on 1/4/01.											
1/4/01	9:15	4,940.0	0	0	0	0.9	**0.93**	-	-	-	-	
	VMP-1 converted to extraction well on 3/8/01.											
3/8/01	7:30	5,343.0	-	-	145	6.4	-					
2/22/01	17:00	5,016	23	15	140	0.0	-					
3/1/01	12:45	5,180	18	12	140	0.0	-					
3/8/01	7:30	5,343	19	12	145	0.0	-					
3/15/01	13:00	5,516	18	12	145	0.8	-					
3/22/01	13:00	5,682	19	12	145	0.2	-					
3/29/01	14:30	5,854	19	13	140	0.6	-					

TABLE 4h

Soil Vapor Extraction Data:

Monitoring/Extraction Well VMP-1

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

Date	Time	Elapsed Time on Hour Meter (hrs)	Flow		Vacuum (in-wc)	Total VOCs by PID (ppmv)	TCE Conc. by Lab (ppmv)	Estimated VOC Removal Rates		Cumulative Mass Removal		
			(acfm)	(scfm)				TCE (lb/day)	Total VOCs (lb/day)	TCE (lbs)	Total VOCs (lbs)	Notes

NOTES:

TCE = trichloroethene
acfm = actual cubic feet per minute
°F = degrees Fahrenheit
hrs = hours
in-wc = inches of water column
lb/day = pounds per day
lbs = pounds
PID = photoionization detector
ppmv = parts per million by volume
scfm = standard cubic feet per minute
tr = trace (concentration detected at less than reporting limit)
VOCs = volatile organic compounds
- = no measurement
< = not detected at indicated method detection limit

1. PID calibrated with 100 ppmv of isobutylene.
2. Laboratory analyses were performed by Performance Analytical, Inc. in Simi Valley, California using EPA Method TO-14A.
3. Well VMP-1 was first used as an extraction well on 8 March 2001.
4. Extraction well VMP-1 is screened in the shallow vadose zone from 19 to 25 feet below ground surface.

TABLE 5

Field Data for Soil Vapor Monitoring Probes

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California

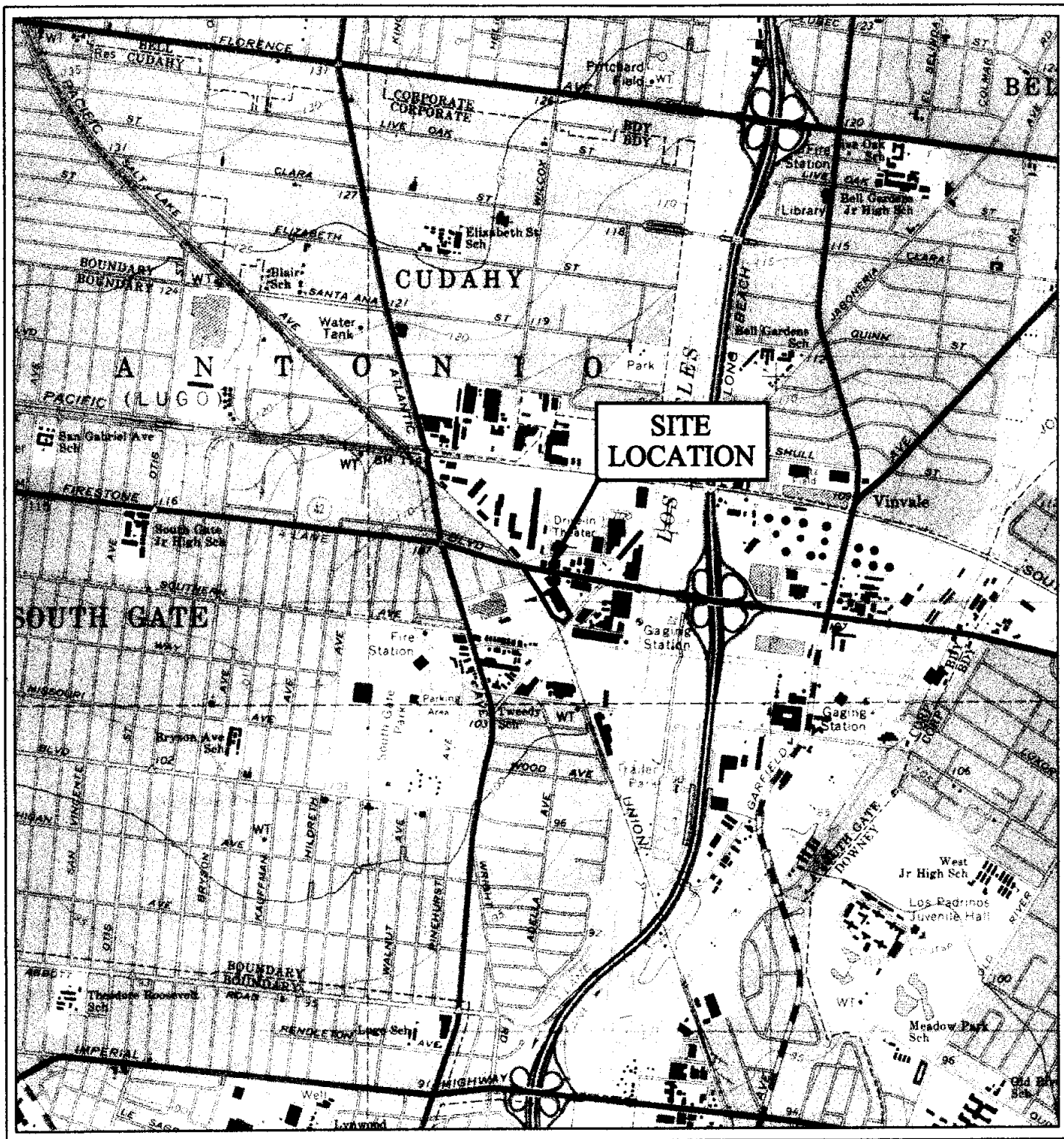
Date	VMP-1		VMP-2		VMP-D1		VMP-D2	
	Vacuum (in-wc)	Total VOCs by PID [1,2] (ppmv)	Vacuum (in-wc)	Total VOCs by PID [1,2] (ppmv)	Vacuum (in-wc)	Total VOCs by PID [1,3] (ppmv)	Vacuum (in-wc)	Total VOCs by PID [1,3] (ppmv)
3/16/00	-	68	-	150	-	530	-	71
3/17/00	1.8	-	1.0	-	4.7	-	5.2	-
3/18/00	1.3	-	1.1	-	6.6	-	6.0	-
3/19/00	1.1	-	0.7	-	2.2	-	2.4	-
3/20/00	2.1	-	1.4	-	2.6	-	3.5	-
3/21/00	2.4	-	2.2	-	5.4	-	6.8	-
3/22/00	2.6	-	2.3	-	5.8	-	4.5	-
3/30/00	1.8	-	1.8	-	15	-	16	-
4/6/00	2.8	6.4	4.2	7.4	23	3.5	24	150
4/13/00	4.0	8.2	2.5	6.2	21	23	22	27
5/11/00	4.6	-	4.0	-	19	-	16	-
5/18/00	3.2	-	3.4	-	17	-	18	-
	3.8	-	2.7	-	21	-	22	-
7/6/00	-	0.0	-	2.6	-	-	-	-
7/13/00	2.6	-	1.9	-	-	-	-	-
7/20/00	2.9	-	2.1	-	-	-	-	-
7/27/00	2.6	-	1.9	-	-	-	-	-
9/14/00	5.2	0.5	2.4	0.7	-	-	-	-
9/28/00	-	1.3	-	2.4	-	-	-	-
10/26/00	11.5	13.2	11.5	2.2	-	-	-	-
12/14/00	7.3	-	0.6	-	-	-	-	-
1/4/01	-	0.9	-	0.4	-	-	-	-

NOTES:

in-wc = inches of water column
PID = photoionization detector
ppmv = parts per million by volume
VOCs = volatile organic compounds
- = no measurement

1. PID calibrated with 100 ppmv of isobutylene.
2. Each shallow vapor monitoring probe was purged of approximately 5 to 7 cubic feet of vapor and then sampled and analyzed using a PID.
3. Each deep vapor monitoring probe was purged of approximately 50 to 65 cubic feet of vapor and then sampled and analyzed using a PID.
4. On days for which two vacuum and PID readings are provided, the values indicate initial and final readings during the site visit.
5. Probes VMP-D1 and VMP-D2 have been used as extraction wells since 6 July 2000. For data collected at wells VMP-D1 and VMP-D2, see Tables 4f and 4g, respectively.
6. Probe VMP-1 has been used as an extraction well since 8 March 2001 (see Table 4h).
7. Soil vapor monitoring probes VMP-1 and VMP-2 are screened in the shallow vadose zone from approximately 19 to 25 feet beneath the ground surface.
8. Soil vapor monitoring probes VMP-D1 and VMP-D2 are screened in the deep vadose zone from approximately 30 to 40 and 31 to 41 feet beneath the ground surface, respectively.

FIGURES

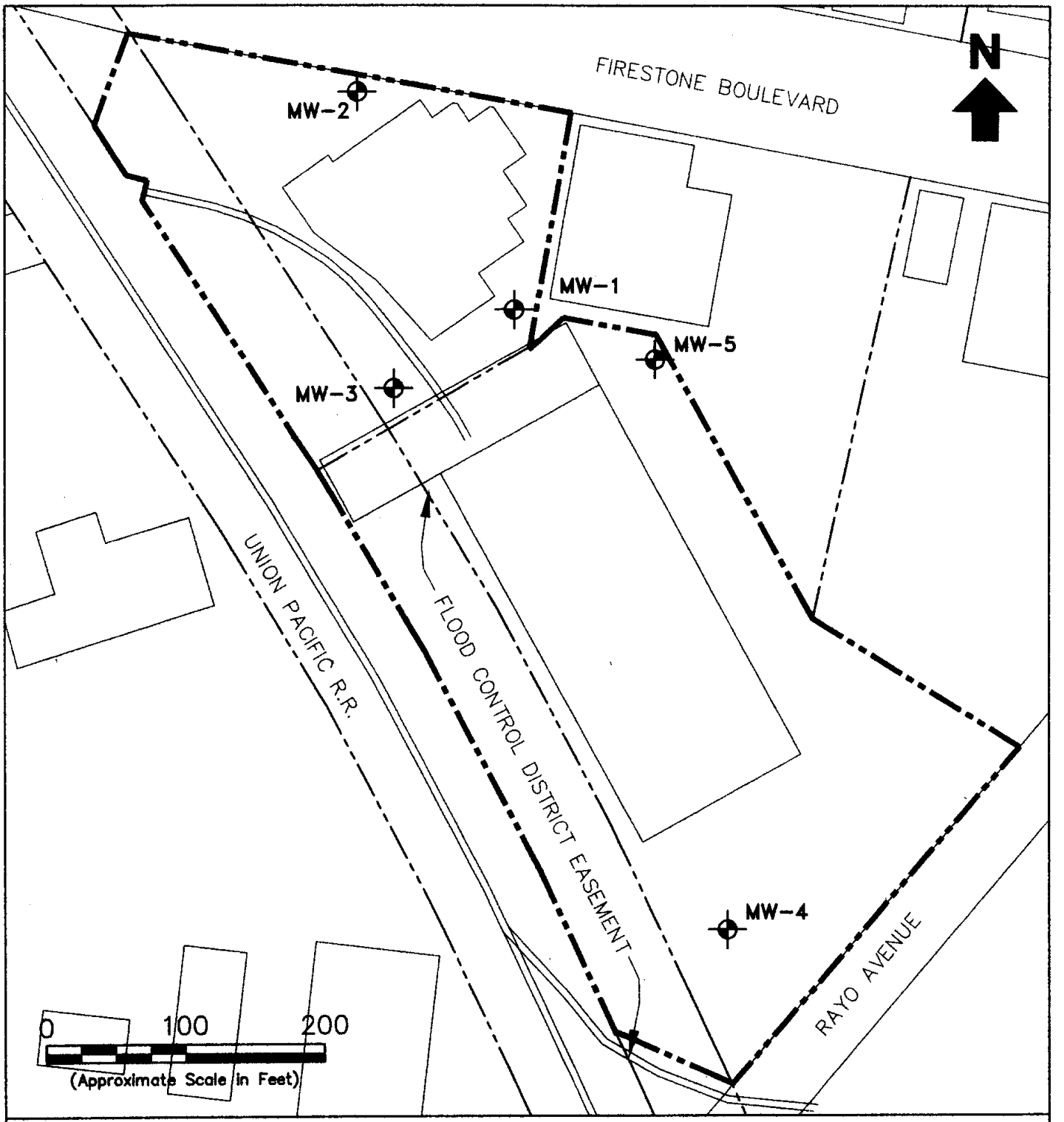


Source: U.S.G.S 7.5 Minute Series "South Gate" Quadrangle, 1964, photorevised 1981.

Erler & Kalinowski, Inc.

Site Location Map

Jervis B. Webb Company of California
South Gate, California
April 2001
EKI 991103.01
Figure 1



LEGEND

- Groundwater Monitoring Well
- Property Line/Site Boundary

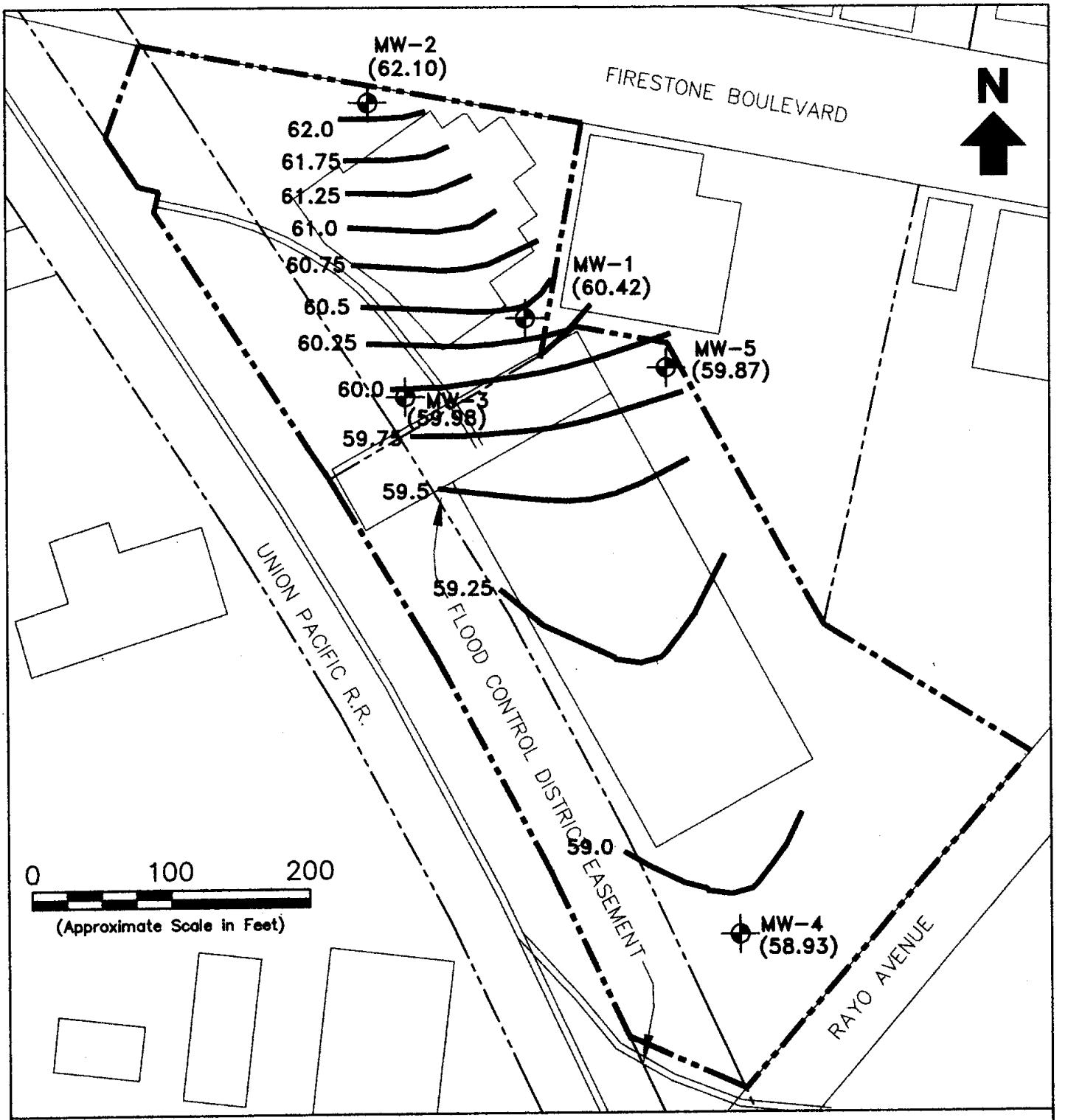
Erler & Kalinowski, Inc.

Groundwater Monitoring Well Locations

Jervis B. Webb Company of California
South Gate, California
April 2001
EKI 991103.01
Figure 2

Notes:

1. All locations are approximate.



LEGEND

- 62.0 — Contour Representing the Elevation of the Groundwater Table in Feet Above Mean Sea Level (msl)
- MW-3 (59.98) — Groundwater Monitoring Well with Groundwater Elevation (msl)
- Property Line/Site Boundary

Notes:

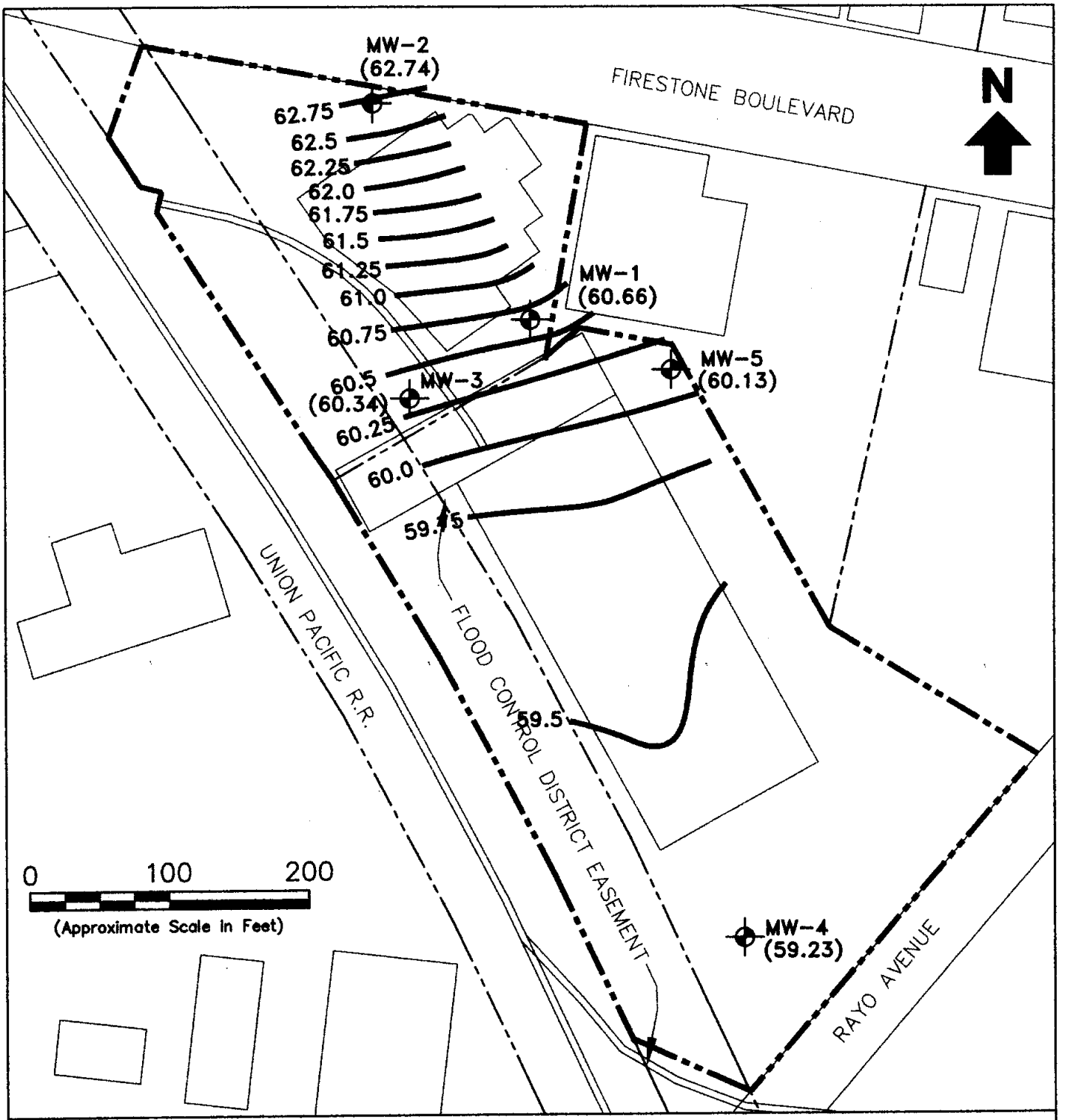
1. All locations are approximate.
2. NR = Not Recorded

Erler & Kalinowski, Inc.

Elevation of the Groundwater Table on 4 January 2001

Jervis B. Webb Company of California
South Gate, California
April 2001
EKI 991103.01

Figure 3



LEGEND

62.0 — Contour Representing the Elevation of the Groundwater Table in Feet Above Mean Sea Level (msl)

MW-3 (60.34) Groundwater Monitoring Well with Groundwater Elevation (msl)

Property Line/Site Boundary

Notes:

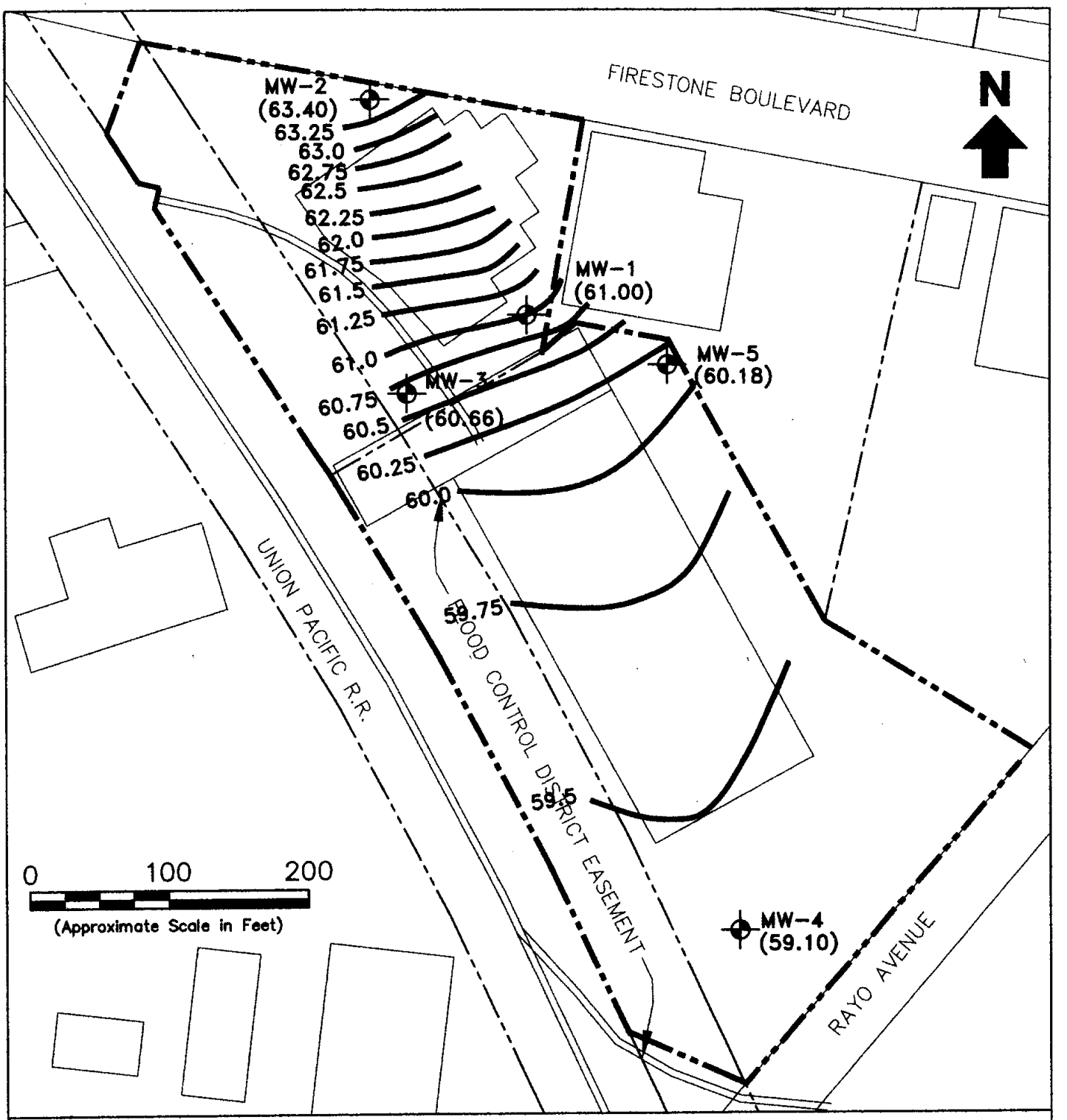
1. All locations are approximate.
2. NR = Not Recorded

Erler & Kalinowski, Inc.

Elevation of the Groundwater Table on 22 February 2001

Jervis B. Webb Company of California
South Gate, California
April 2001
EKI 991103.01

Figure 4



LEGEND

62.0 — Contour Representing the Elevation of the Groundwater Table in Feet Above Mean Sea Level (msl)

MW-3 (60.66) — Groundwater Monitoring Well with Groundwater Elevation (msl)

Property Line/Site Boundary

Notes:

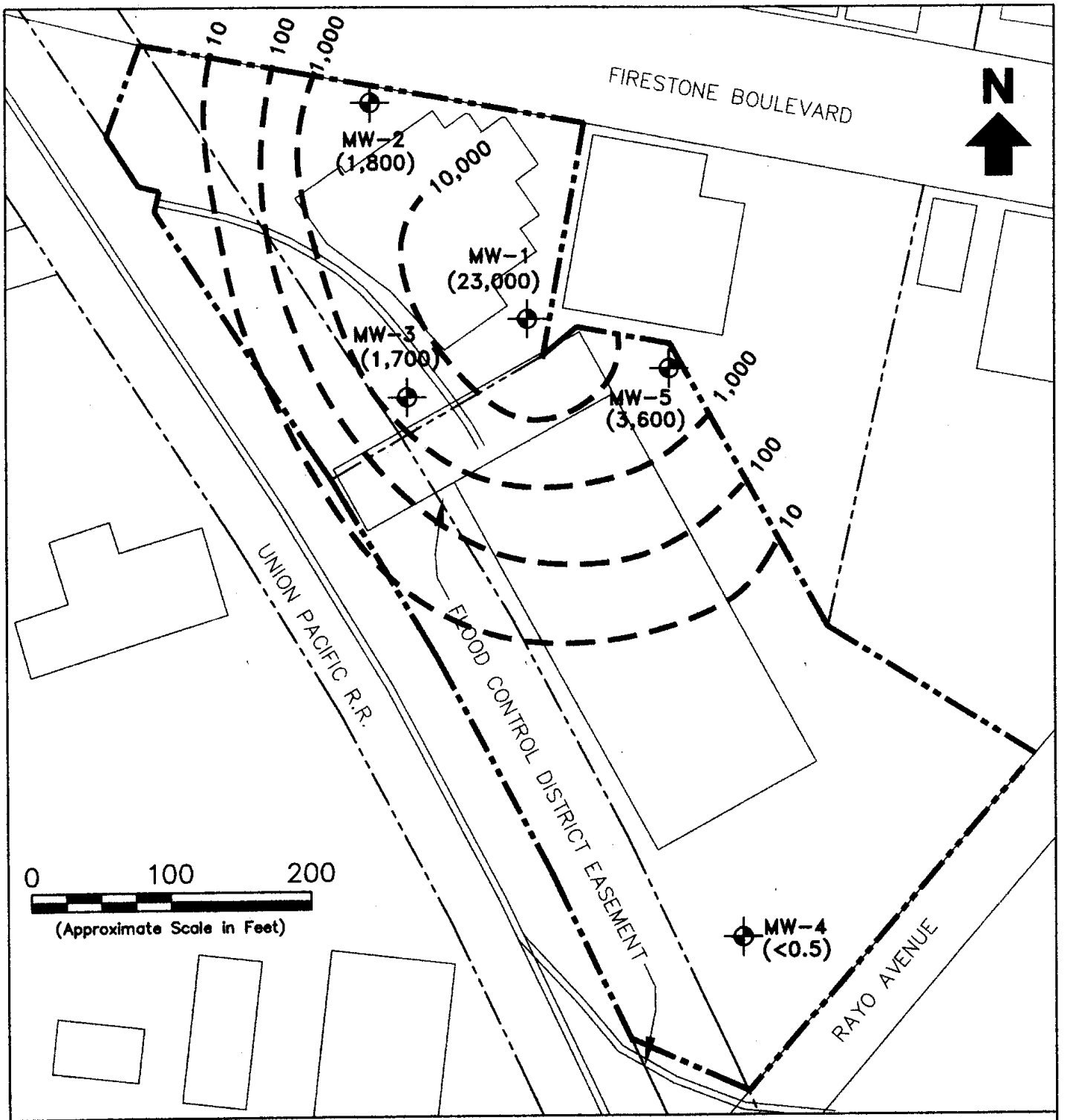
1. All locations are approximate.
2. NR = Not Recorded

Erler & Kalinowski, Inc.

Elevation of the Groundwater Table on 8 March 2001

Jervis B. Webb Company of California
South Gate, California
April 2001
EKI 991103.01

Figure 5



LEGEND

- 1,000 — Isoconcentration Contour for Trichloroethene (Micrograms per Liter)
- MW-3 — Groundwater Monitoring Well
- Property Line/Site Boundary

Notes:

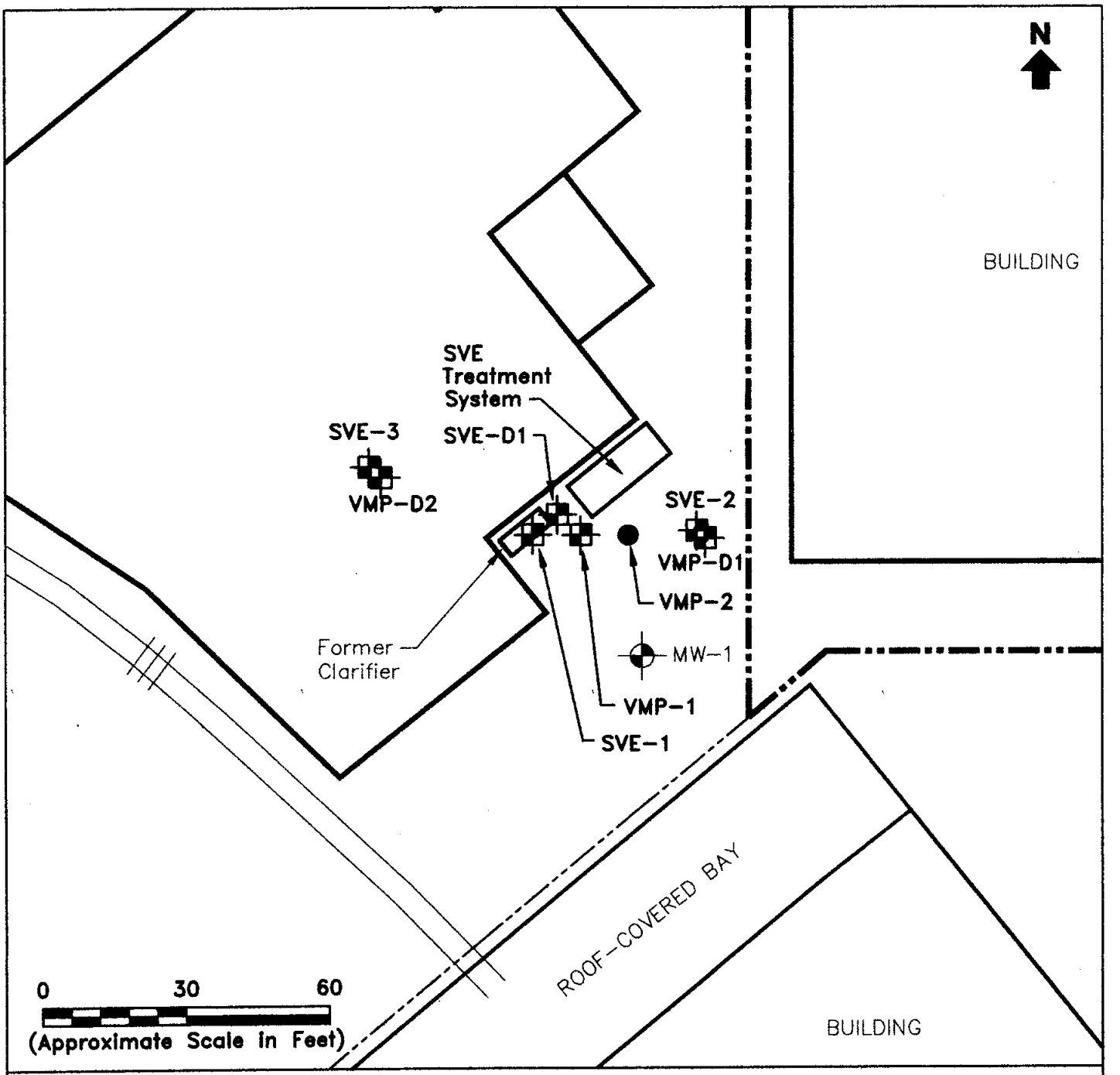
1. All locations are approximate.
2. Concentrations shown in units of micrograms per liter.

Erler & Kalinowski, Inc.

Concentrations of Trichloroethene Detected in Groundwater Samples

Jervis B. Webb Company of California
South Gate, California
April 2001
EKI 991103.01

Figure 6



LEGEND

- Location of Soil Vapor Extraction Wells
- Location of Vapor Monitoring Probe
- Location of Groundwater Monitoring Well
- Property Line/Site Boundary
- Building
- Railroad Spur

Notes:

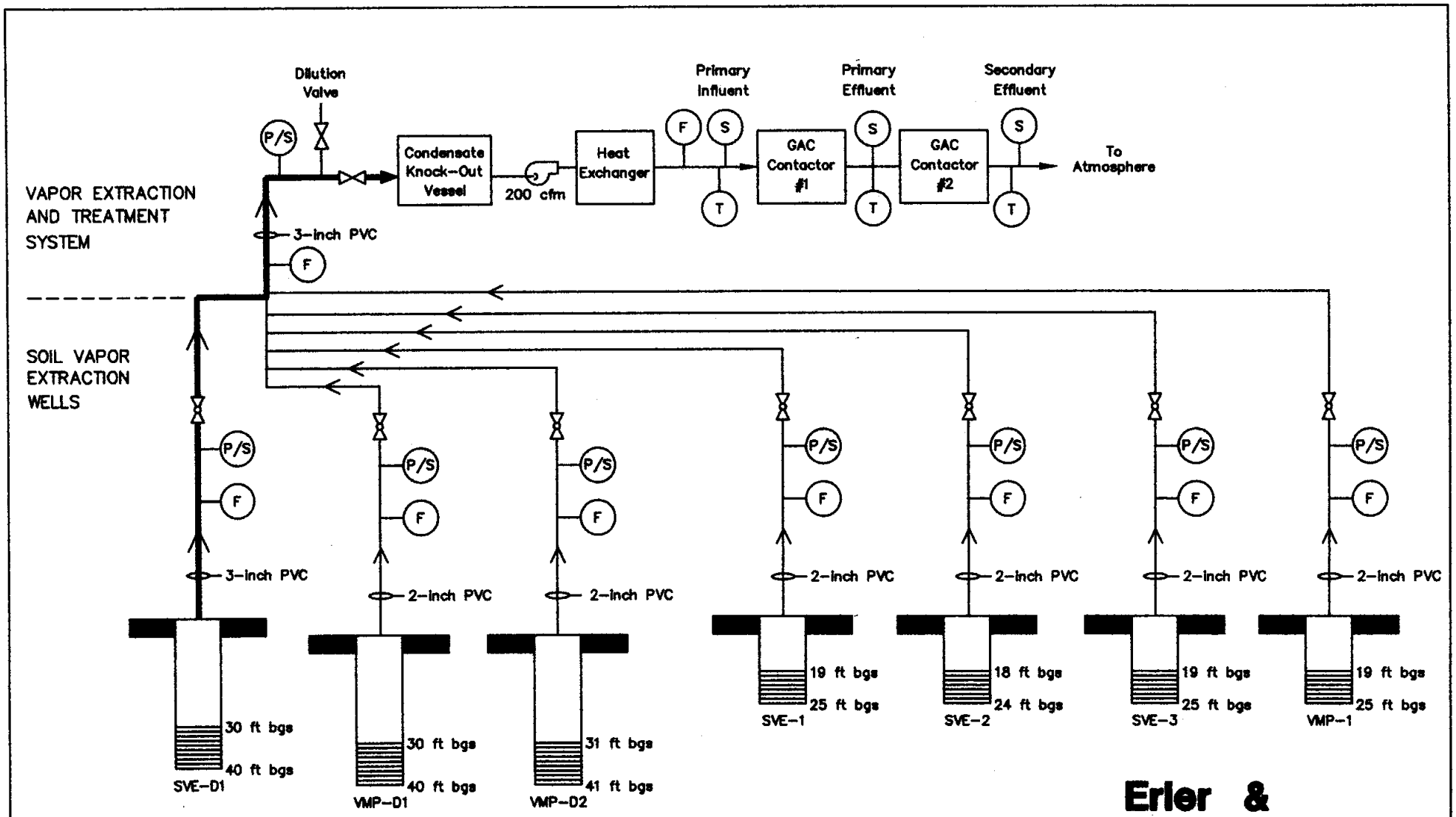
1. All locations are approximate.
2. SVE = Soil Vapor Extraction

Erler & Kalinowski, Inc.

Layout of the Soil Vapor Extraction System

Jervis B. Webb Company of California
South Gate, California
April 2001
EKI 991103.01

Figure 7



LEGEND

- F — Flow Port
- P/S — Pressure/Sample Port
- S — Sample Port
- T — Temperature Gage
- Ball Valve
- Gate Valve
- Well Screen
- Flow Direction
- SVE Blower

Notes:

1. Not to scale.
2. Pressure/Sampling Ports are 1/4" hose barbs.
3. Abbreviations:
   - cfm = cubic feet per minute
   - ft bgs = feet below ground surface
   - GAC = granular activated carbon
   - SVE = soil vapor extraction

Erler & Kalinowski, Inc.

Soil Vapor Extraction System Schematic

Jervis B. Webb Company of California
South Gate, California

April 2001
EKI 991103.01

Figure 8

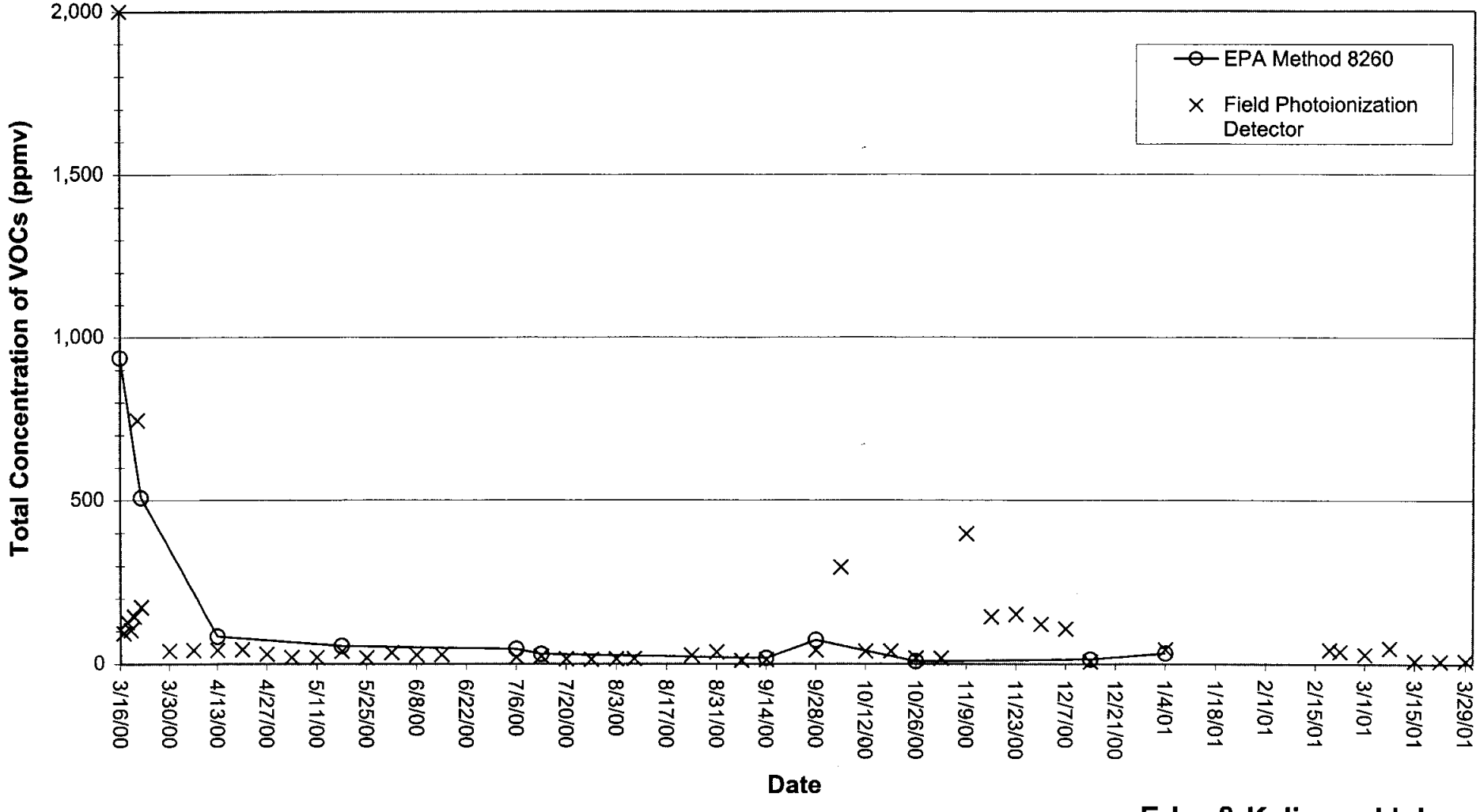
000778

FIGURE 9a

Concentrations of Total VOCs versus Time: Blower Influent

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California



EKI 991103.01
2001-Q1 Table 4 & Figure 9

Erler & Kalinowski, Inc.

30 April 2001

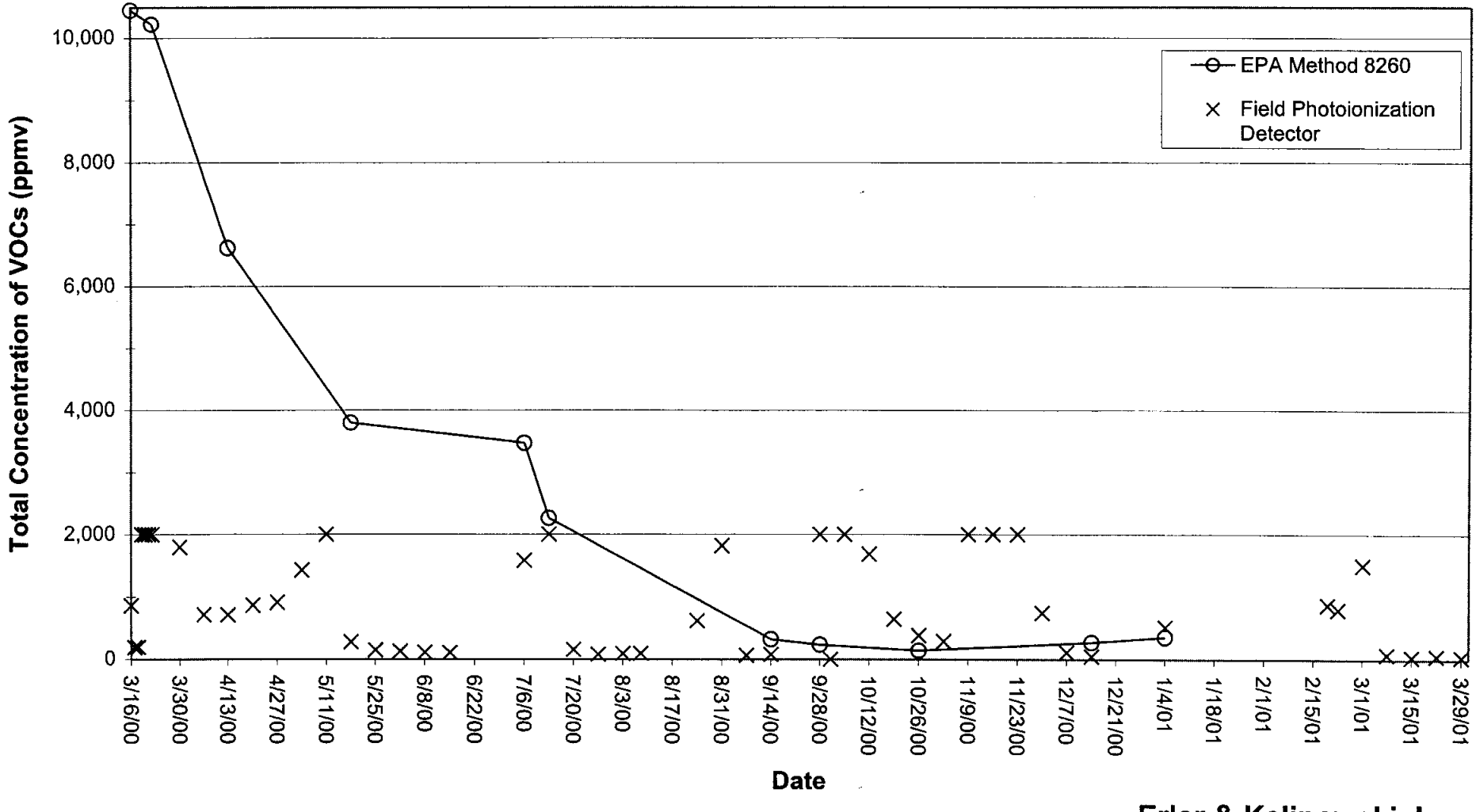
000779

FIGURE 9b

Total Concentrations of VOCs versus Time : Extraction Well SVE-1

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California



EKI 991103.01
2001-Q1 Table 4 & Figure 9

Erler & Kalinowski, Inc.

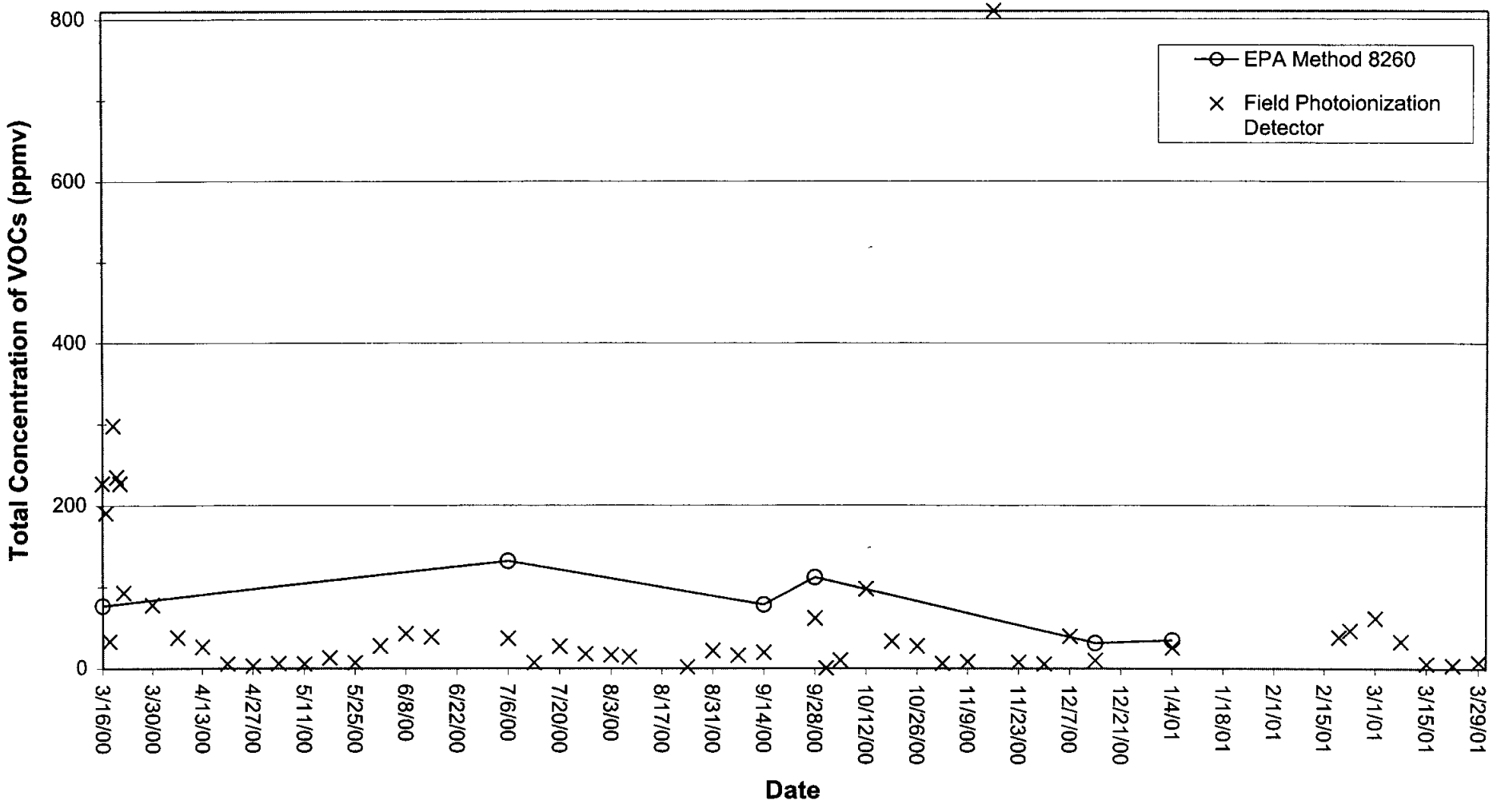
30 April 2001

FIGURE 9c

Concentrations of Total VOCs versus Time: Extraction Well SVE-2

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California



EKI 991103.01
2001-Q1 Table 4 & Figure 9

Erler & Kalinowski, Inc.

30 April 2001

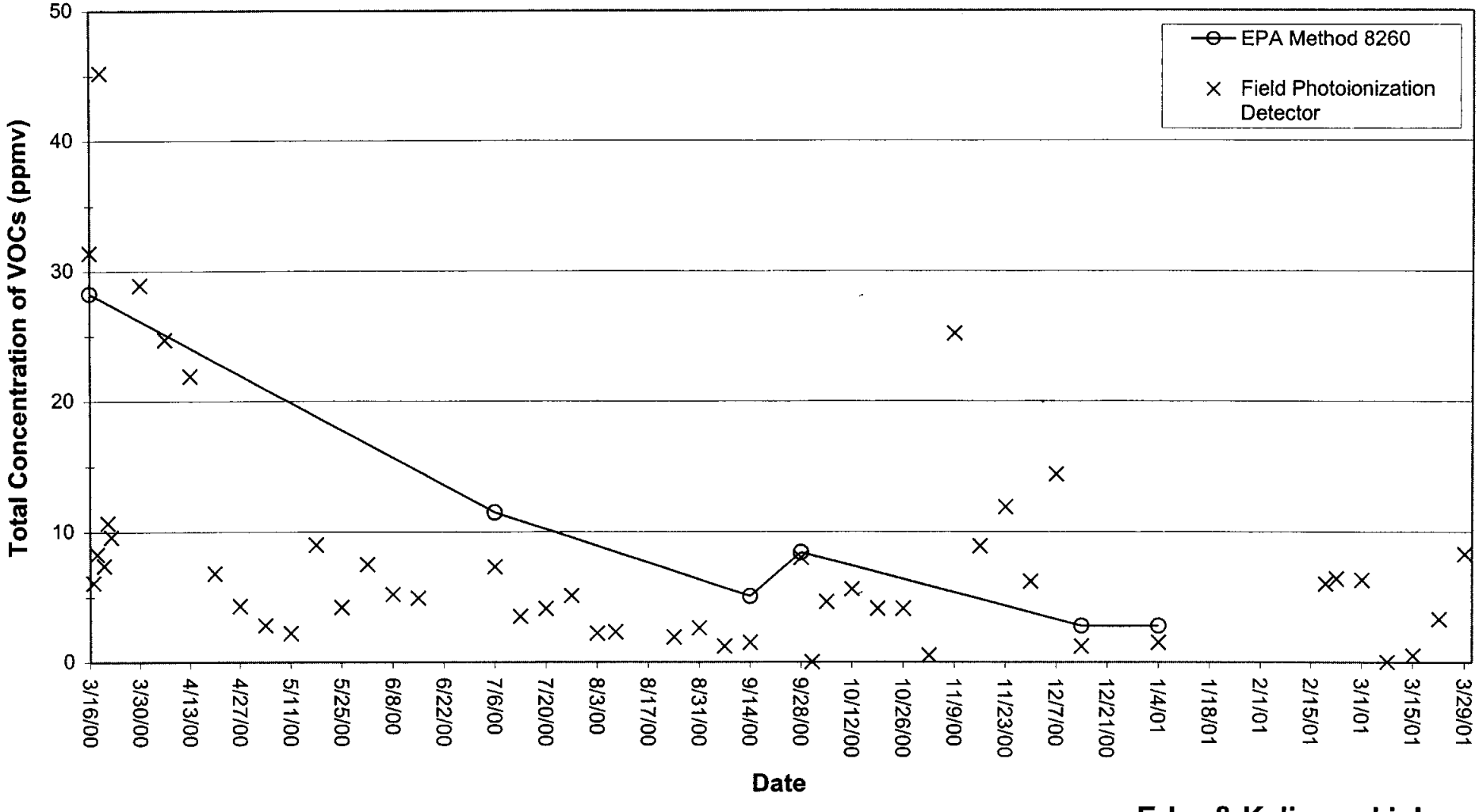
000781

FIGURE 9d

Concentrations of Total VOCs versus Time: Extraction Well SVE-3

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California



EKI 991103.01
2001-Q1 Table 4 & Figure 9

Erler & Kalinowski, Inc.

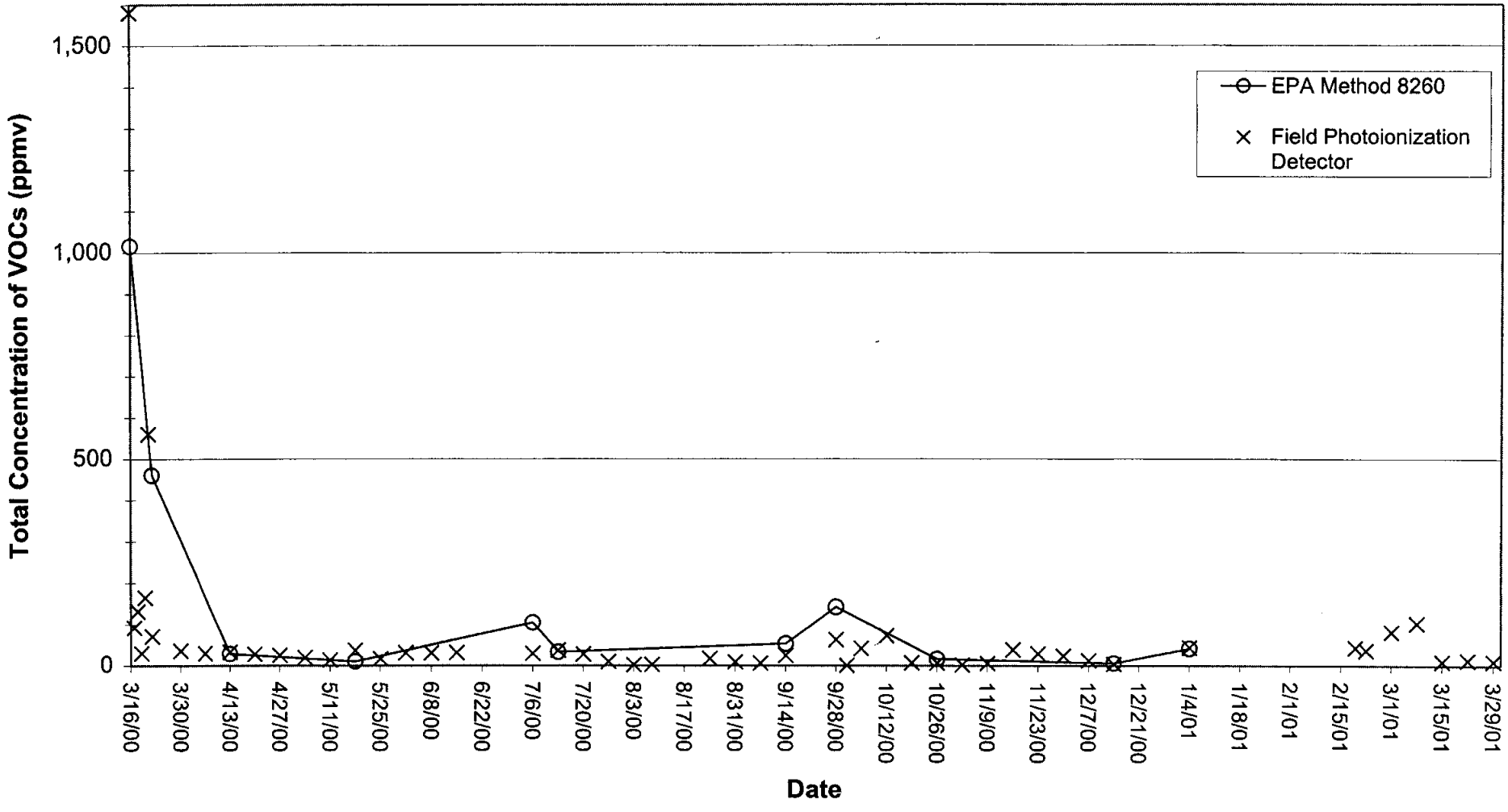
30 April 2001

FIGURE 9e

Concentrations of Total VOCs versus Time: Extraction Well SVE-D1

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California



EKI 991103.01
2001-Q1 Table 4 & Figure 9

Erler & Kalinowski, Inc.

30 April 2001

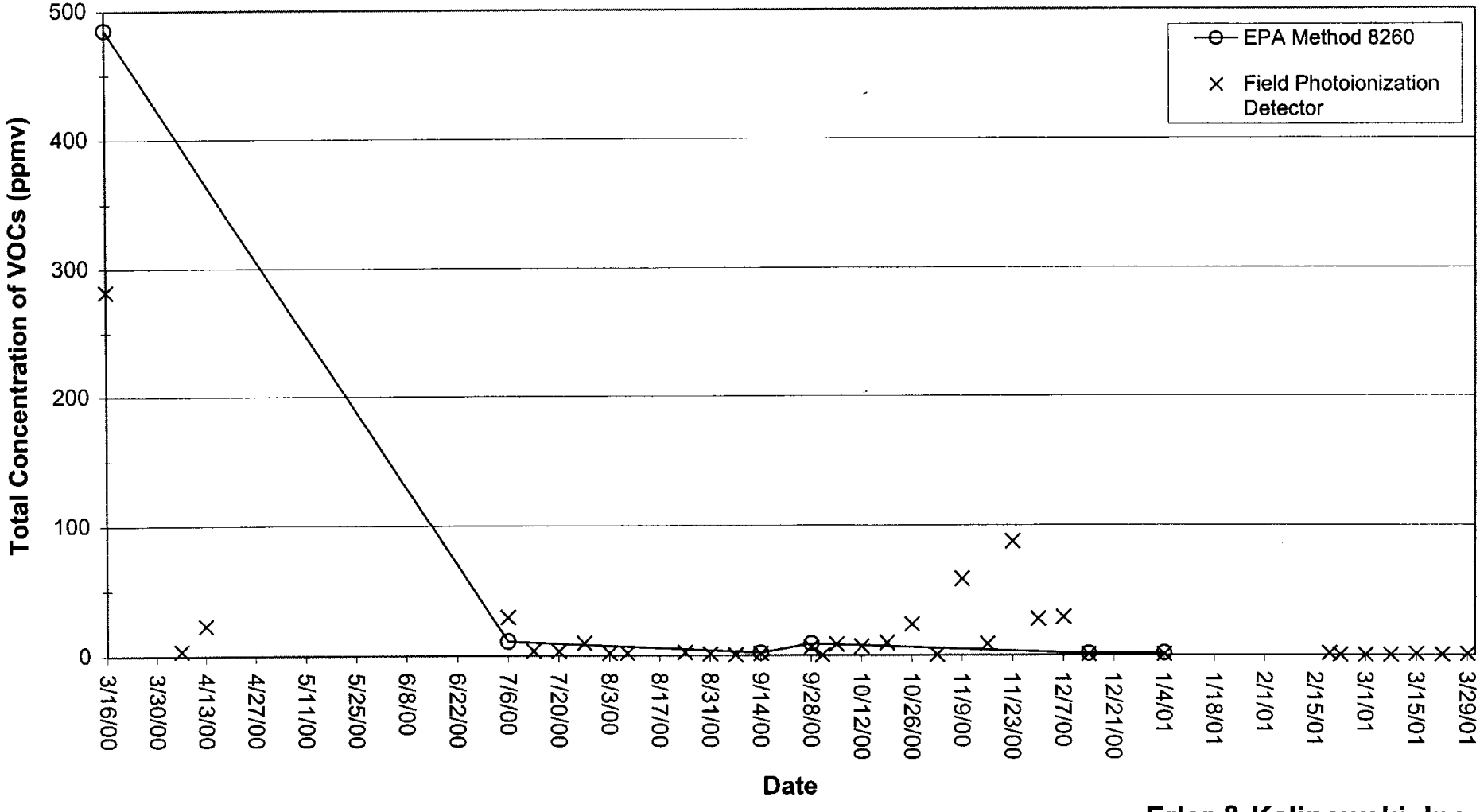
000783

FIGURE 9f

Concentrations of Total VOCs versus Time: Extraction Well VMP-D1

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California



EKI 991103.01
2001-Q1 Table 4 & Figure 9

Erler & Kalinowski, Inc.

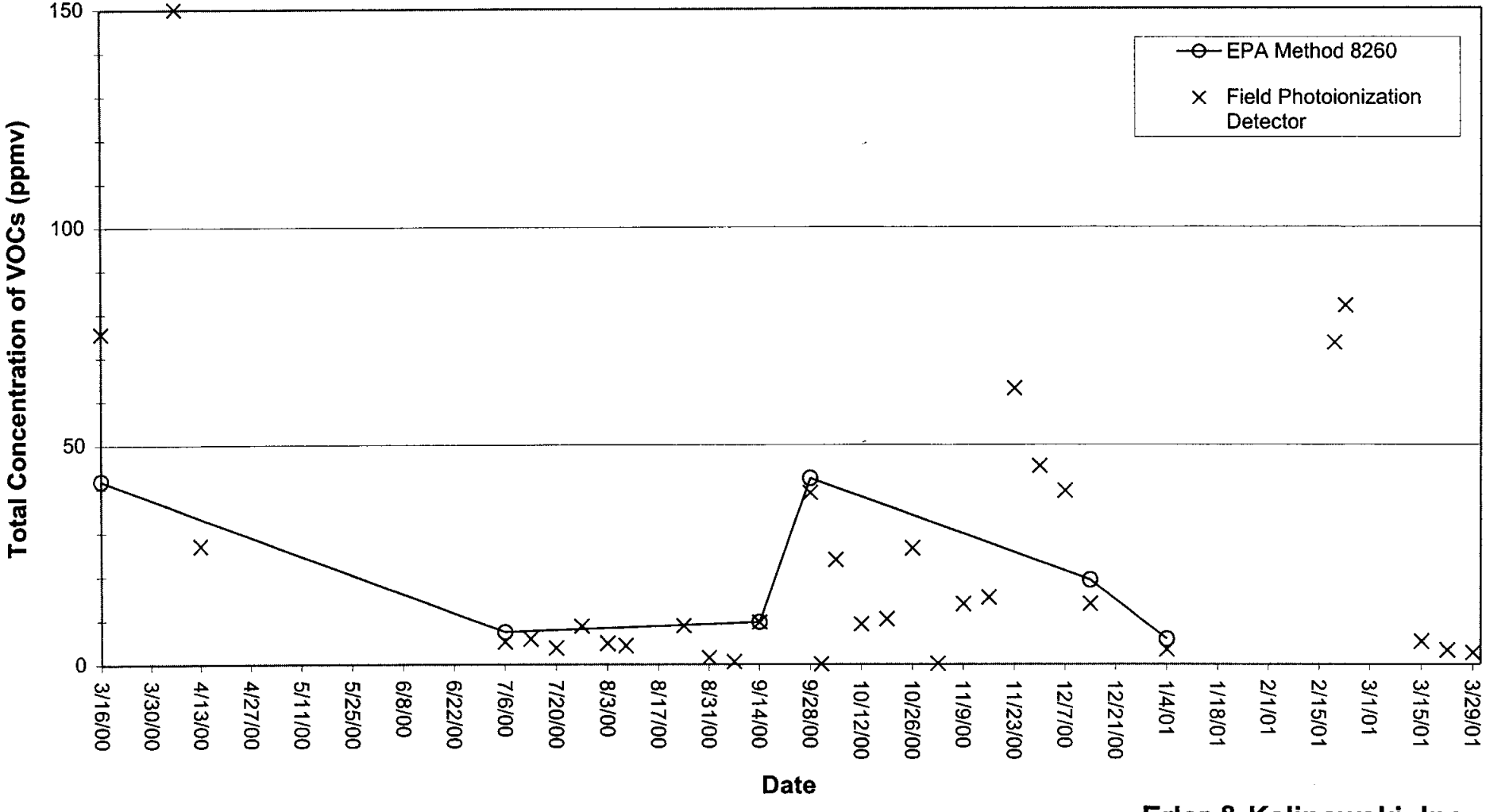
30 April 2001

FIGURE 9g

Concentrations of Total VOCs versus Time: Extraction Well VMP-D2

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California



EKI 991103.01
2001-Q1 Table 4 & Figure 9

Erler & Kalinowski, Inc.

30 April 2001

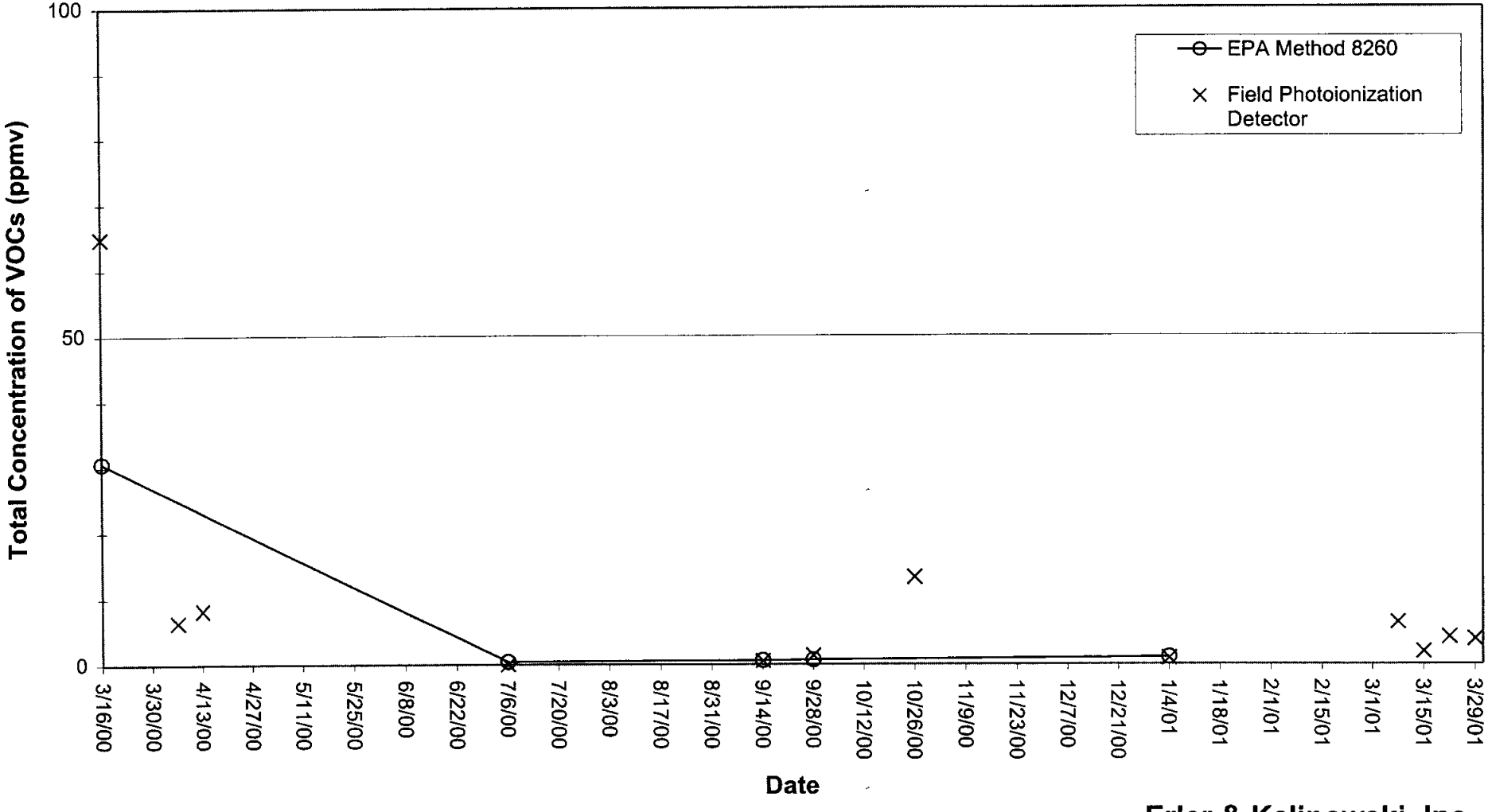
000785

FIGURE 9h

Concentrations of Total VOCs versus Time: Extraction Well VMP-1

Quarterly Progress Report for January through March 2001

Jervis B. Webb Company of California, 5030 Firestone Boulevard, South Gate, California



EKI 991103.01
2001-Q1 Table 4 & Figure 9

Erler & Kalinowski, Inc.

30 April 2001

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APPENDIX A

Groundwater Purge and Water Quality Monitoring Forms for Groundwater Sampling

GROUNDWATER PURGE AND
WATER QUALITY MONITORING FORM

Erler & Kalinowski, Inc.

PROJECT NAME: Webb DATE: 3/8/01

PROJECT NUMBER: 991103.01 WELL NUMBER: MW-1 PERSONNEL: S.C.H

WELL VOLUME CALCULATION:

Depth of Well (ft.)		Depth to Water (ft.)		Water Column (ft.)		Multiplier (below)		Casing Vol. (gallons)
69.98	-	45.09	=		*		=	

Mult. for casing diam. = 2-in.=0.16; 4-in.=0.64; 5-in.=1.02; 6-in.=1.44 gals/ft.

No. of bailers prior to start of purge: 0

PURGE METHOD: 2" Grundfos

PURGE DEPTH: 65'

START TIME: 14:45 END TIME: 15:11

TOTAL GALLONS PURGED:

INSTRUMENT CALIBRATION

Instrument	Field measure	Standard measure
Conductivity		
pH	See MW-4	
pH		
Turbidity		
Temperature		
Depth Probe		

Time	14:50	14:55	14:58	15:03	15:07	15:11		
Volume Purged (gallons)	10	20	30	40	45	50		
Temperature (degrees F or C)	72.1	71.2	70.1	70.2	69.7	69.7		
pH (units)	7.27	7.52	7.42	7.25	7.33	7.29		
Specific Conductivity (uS/cm)	2.020	1.770	2.840	3.921	5.780	5.810		
Turbidity/Color (NTU)	13.0	4.93	2.91	1.79	1.85	1.44		
Odor	None	—	—	—	—	—		
Depth to Water (ft below TOC) during purge								
Number of Casing Volumes removed								
Purge Rate (gallons/minute)								

COMMENTS/ SAMPLES:	Field I.D.	Time Collected	Containers & Preservation	Analyses Requested
	MW-1		2 x 40 mL VOA w/HCl	8260
			1 x 100 mL HNO3	8260 Total Chromium, Hex Chromium

GROUNDWATER PURGE AND
WATER QUALITY MONITORING FORM

Erler & Kalinowski, Inc.

PROJECT NAME: Nebb DATE: 3/8/01

PROJECT NUMBER: 991103.01 WELL NUMBER: MW-2 PERSONNEL: SCH

WELL VOLUME CALCULATION:

Depth of Well (ft.)		Depth to Water (ft.)		Water Column (ft.)		Multiplier (below)		Casing Vol. (gallons)
69.55	-	43.25	=	26.3	*	0.64	= 16.8	50.4

Mult. for casing diam. = 2-in.=0.16; 4-in.=0.64; 5-in.=1.02; 6-in.=1.44 gals/ft.

No. of bailers prior to start of purge: ~~0~~

PURGE METHOD: 2" Grundfos

PURGE DEPTH: 65'

START TIME: 10:27 END TIME:

TOTAL GALLONS PURGED:

INSTRUMENT CALIBRATION

Instrument	Field measure	Standard measure
Conductivity		
pH		
pH	See MW-4	
Turbidity		
Temperature		
Depth Probe		

Time	10:34	10:43	10:51	10:58	11:01	11:10	11:15	11:26
Volume Purged (gallons)	10	20	25	30	35	40	45	50
Temperature (degrees F or C)	69.7	71.3	72.0	71.5	71.7	71.3	72.1	71.9
pH (units)	7.23	7.29	7.24	7.23	7.30	7.09	7.21	7.23
Specific Conductivity (uS/cm)	2.360	3.290	3.530	3.510	3.580	3.620	3.680	3.740
Turbidity/Color (NTU)	166	118	222	576	347	164	62.5	34.0
Odor	NONE	—	—	—	—	—	—	—
Depth to Water (ft below TOC) during purge								
Number of Casing Volumes removed								
Purge Rate (gallons/minute)	1.5	—	—	—	—	—	—	—

COMMENTS/ SAMPLES:

Field I.D.	Time Collected	Containers & Preservation	Analyses Requested
MW-2		4 x 40 mL VOA's w/HCl	8260
		2 x mL	

GROUNDWATER PURGE AND
WATER QUALITY MONITORING FORM

Erler & Kalinowski, Inc. (2)

PROJECT NAME: Webb DATE: 3/9/01

PROJECT NUMBER: 991103.01 WELL NUMBER: MW-2 PERSONNEL: S.C.H

WELL VOLUME CALCULATION:

Depth of Well (ft.)		Depth to Water (ft.)		Water Column (ft.)		Multiplier (below)		Casing Vol. (gallons)
	-		=		*		=	

Mult. for casing diam. = 2-in.=0.16; 4-in.=0.64; 5-in.=1.02; 6-in.=1.44 gals/ft.

No. of bailers prior to start of purge: 6

PURGE METHOD: 2" Grundfos

PURGE DEPTH: 65'

START TIME: END TIME: 11:55

TOTAL GALLONS PURGED:

INSTRUMENT CALIBRATION

Instrument	Field measure	Standard measure
Conductivity		
pH		
pH	SEE MW-4	
Turbidity		
Temperature		
Depth Probe		

Time	11:32	11:39	11:48	11:55				
Volume Purged (gallons)	55	60	70	80				
Temperature (degrees F or C)	71.7	71.6	71.8	72.3				
pH (units)	7.08	7.20	7.21	7.20				
Specific Conductivity (uS/cm)	3.890	3.830	3.600	3.75				
Turbidity/Color (NTU)	22.5	26.5	10.26	3.75				
Odor	None	—	—	—				
Depth to Water (ft below TOC) during purge								
Number of Casing Volumes removed								
Purge Rate (gallons/minute)	1.5	—	—	—				

COMMENTS/ SAMPLES: MW-2

Field I.D.	Time Collected	Containers & Preservation	Analyses Requested

GROUNDWATER PURGE AND
WATER QUALITY MONITORING FORM

Erler & Kalinowski, Inc.

PROJECT NAME: Webb DATE: 3/8/01

PROJECT NUMBER: 991103 WELL NUMBER: MW-3 PERSONNEL: S.H

WELL VOLUME CALCULATION:

Depth of Well (ft.)		Depth to Water (ft.)		Water Column (ft.)		Multiplier (below)		Casing Vol. (gallons)
69.93	-	45.21	=	24.72	*	0.64	= 15.82 x 3 =	47.4

Mult. for casing diam. = 2-in.=0.16; 4-in.=0.64; 5-in.=1.02; 6-in.=1.44 gals/ft.

No. of bailers prior to start of purge: ~~0~~

PURGE METHOD: 2" GRUNDFOS

PURGE DEPTH: 65'

START TIME: 12:38 END TIME: 13:01

TOTAL GALLONS PURGED:

INSTRUMENT CALIBRATION

Instrument	Field measure	Standard measure
Conductivity		
pH		
pH	See MW-4	
Turbidity		
Temperature		
Depth Probe		

Time	12:41	12:46	12:49	12:53	12:57	13:01		
Volume Purged (gallons)	10	20	30	40	50	55		
Temperature (degrees F or C)	68.2	68.6	68.8	68.8	68.9	68.9		
pH (units)	7.11	7.36	7.36	7.43	7.39	7.39		
Specific Conductivity (uS/cm)	1.620	2.440	3.080	3.300	3.250	2.940		
Turbidity/Color (NTU)	45.1	119.0	17.6	7.41	3.24	2.40		
Odor	NONE	—	—	—	—	—		
Depth to Water (ft below TOC) during purge								
Number of Casing Volumes removed								
Purge Rate (gallons/minute)	4.0	—	—	—	—	—		

COMMENTS/ SAMPLES:	Field I.D.	Time Collected	Containers & Preservation	Analyses Requested
	MW-3		2 x 40 ml VOA w/HCl	8260
			1 x 100 ml	Total Chromium "Hex" Chromium
	MW-3			
	Rinsate		2 x 40 ml VOA	8260
	Rinsate		1 x 100 ml plastic	Total Chromium Hex Chromium

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GROUNDWATER PURGE AND
WATER QUALITY MONITORING FORM

Erler & Kalinowski, Inc.

PROJECT NAME: Webb DATE: 3/8/01

PROJECT NUMBER: 991103.01 WELL NUMBER: MW-4 PERSONNEL: S. H

WELL VOLUME CALCULATION:

Depth of Well (ft.)	Depth to Water (ft.)	Water Column (ft.)	Multiplier (below)	Casing Vol. (gallons)
~~45.62~~ 69.06 -	45.62	= 23.44	* 0.64	= 15.0 x 3 = 45

Mult. for casing diam. = 2-in.=0.16; 4-in.=0.64; 5-in.=1.02; 6-in.=1.44 gals/ft.

No. of bailers prior to start of purge: ~~0~~

PURGE METHOD: 3" GRUNDFOS

PURGE DEPTH: 65'

START TIME: 09:30 END TIME: 09:53

TOTAL GALLONS PURGED: 55

INSTRUMENT CALIBRATION

Instrument	Field measure	Standard measure
Conductivity	1000	1000
pH	6.99	7.00
pH	3.98	4.01
Turbidity		
Temperature		
Depth Probe		

Time	9:39	9:45	9:47	9:49	9:51			
Volume Purged (gallons)	~~2010~~	20	30	40	50			
Temperature (degrees F or C)	69.7	67.6	69.7	69.8	70.0			
pH (units)	7.02	6.99	7.04	7.07	7.06			
Specific Conductivity (uS/cm)	3.888	4.510	4.580	4.640	4.660			
Turbidity/Color (NTU)	15.1	6.20	2.56	2.91	0.76			
Odor	NONE	—	—	—	—			
Depth to Water (ft below TOC) during purge								
Number of Casing Volumes removed								
Purge Rate (gallons/minute)	4.0	—	—	—	—			

COMMENTS/ SAMPLES:	Field I.D.	Time Collected	Containers & Preservation	Analyses Requested
	MW-4	9:58	2 x 40 mL VOA 1 HNO3	

GROUNDWATER PURGE AND
WATER QUALITY MONITORING FORM

Erler & Kalinowski, Inc.

PROJECT NAME: Wolf

DATE: 3/8/01

PROJECT NUMBER: 991103.01 WELL NUMBER: MW-5 PERSONNEL: SCH

WELL VOLUME CALCULATION:

Depth of Well (ft.)		Depth to Water (ft.)		Water Column (ft.)		Multiplier (below)		Casing Vol. (gallons)
64.45	−	45.95	=	22.9	*	0.64	=	14.6 x 3 = 43.8

Mult. for casing diam. = 2-in.=0.16; 4-in.=0.64; 5-in.=1.02; 6-in.=1.44 gals/ft.

No. of bailers prior to start of purge: 0

PURGE METHOD: 0 2" GRUNDFOS

PURGE DEPTH: ~~@~~ 64'

START TIME: 13:45 END TIME: 14:19

TOTAL GALLONS PURGED:

INSTRUMENT CALIBRATION

Instrument	Field measure	Standard measure
Conductivity		
pH	See MW-4	
pH		
Turbidity		
Temperature		
Depth Probe		

Time	13:30	13:59	14:04	14:09	14:14	14:19		
Volume Purged (gallons)	10	20	30	40	50	55		
Temperature (degrees F or C)	64.1	69.5	69.9	69.7	69.5	69.6		
pH (units)	6.99	7.18	7.20	7.20	7.24	7.18		
Specific Conductivity (uS/cm)	4.330	4.890	5.043	5.090	4.970	5.040		
Turbidity/Color (NTU)	9.10	3.43	2.19	1.79	1.43	1.30		
Odor	NONE	—	—	—	—	—		
Depth to Water (ft below TOC) during purge								
Number of Casing Volumes removed								
Purge Rate (gallons/minute)	4.0	—	—	—	—	—		

COMMENTS/ SAMPLES:	Field I.D.	Time Collected	Containers & Preservation	Analyses Requested
	MW-5			

B

APPENDIX B

Laboratory Reports and Chain-of-Custody Forms for Groundwater Sampling

ORANGE COAST ANALYTICAL, INC.
3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

Laboratory Name: ORANGE COAST ANALYTICAL, INC.

Address: 3002 Dow Suite 532 Tustin, CA 92780

Telephone: (714) 832-0064

Laboratory Certification
(ELAP) No.: 1416 Expiration Date: 2003

Laboratory Director's Name (Print) : Mark Noorani

Client: Erler & Kalinowski, Inc.

Project No.: 991103.01

Project Name: Webb

Laboratory Reference: EKI 12211

Analytical Method: EPA 8260 Cam Metals

Date Sampled: 03/08/01
Date Received: 03/08/01
Date Reported: 03/15/01

Sample Matrix: Water

Chain of Custody Received: Yes

Laboratory Director's Signature: Mark Noorani

Erler & Kalinowski, Inc.
ATTN: Mr. Brian Auchard
3250 Ocean Park Blvd. Suite 385
Santa Monica, CA 90405

Client Project ID: Webb
Client Project #: 991103.01

SAMPLE DESCRIPTION (Water)
Laboratory Reference #: EKI 12211

VOLATILE ORGANICS BY GC/MS (EPA 8260)

				Sampled:	---	03/08/01	03/08/01	03/08/01
				Received:	---	03/08/01	03/08/01	03/08/01
				Analyzed:	03/13/01	03/14/01	03/15/01	03/15/01
				Reported:	03/15/01	03/15/01	03/15/01	03/15/01
				Lab Sample I.D.	MB03013	01030150	01030151	01030152
				Client Sample I.D.	---	MW-1	MW-2	MW-2 Dup
				DILUTION FACTOR	1.0	200	20	20
ANALYTE	***CAS NUMBER***	***DETECTION LIMIT µg/l***	***MDL***		***SAMPLE RESULTS***			
					µg/l	***µg/l***	***µg/l***	***µg/l***
Acetone	67-64-1	2.0	2.0		<2.0	<400	<40	<40
Benzene	71-43-2	0.5	0.5		<0.5	<100	<10	<10
Bromodichloromethane	75-27-4	0.5	0.5		<0.5	<100	<10	<10
Bromoform	75-25-2	0.5	0.5		<0.5	<100	<10	<10
Bromomethane	74-83-9	1.0	1.0		<1.0	<200	<20	<20
2-Butanone	78-93-3	1.0	1.0		<1.0	<200	<20	<20
Carbon Disulfide	75-15-0	0.5	0.5		<0.5	<100	<10	<10
Carbon tetrachloride	56-23-5	0.5	0.5		<0.5	<100	<10	<10
Chlorobenzene	108-90-7	0.5	0.5		<0.5	<100	<10	<10
Chlorodibromomethane	124-48-1	0.5	0.5		<0.5	<100	<10	<10
Chloroethane	75-00-3	0.5	0.5		<0.5	<100	<10	<10
2-Chloroethyl vinyl ether	110-75-8	1.0	1.0		<1.0	<200	<20	<20
Chloroform	67-66-3	0.5	0.5		<0.5	<100	<10	<10
Chloromethane	74-87-3	0.5	0.5		<0.5	<100	<10	<10
1,1-Dichloroethane	75-34-3	0.5	0.5		<0.5	<100	<10	<10
1,2-Dichloroethane	107-06-2	0.5	0.5		<0.5	<100	<10	<10
1,1-Dichloroethene	75-35-4	0.5	0.5		<0.5	<100	<10	<10
cis-1,2-Dichloroethene	156-59-2	0.5	0.5		<0.5	<100	44	42
trans-1,2-Dichloroethene	156-60-5	0.5	0.5		<0.5	<100	<10	<10
1,2-Dichloropropane	78-87-5	0.5	0.5		<0.5	<100	<10	<10
cis-1,3-Dichloropropene	10061-01-5	0.5	0.5		<0.5	<100	<10	<10
trans-1,3-Dichloropropene	10061-02-6	0.5	0.5		<0.5	<100	<10	<10
Ethylbenzene	100-41-4	0.5	0.5		<0.5	<100	<10	<10
2-Hexanone	591-78-6	1.0	1.0		<1.0	<200	<20	<20
Methylene chloride	75-09-2	2.5	2.5		<2.5	<500	<50	<50
4-Methyl-2-pentanone	108-10-1	1.0	1.0		<1.0	<200	<20	<20
Styrene	100-42-5	0.5	0.5		<0.5	<100	<10	<10
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.5		<0.5	<100	<10	<10
Tetrachloroethene	127-18-4	0.5	0.5		<0.5	<100	<10	<10
Toluene	108-88-3	0.5	0.5		<0.5	<100	<10	<10
1,1,1-Trichloroethane	71-55-6	0.5	0.5		<0.5	<100	<10	<10
1,1,2-Trichloroethane	79-00-5	0.5	0.5		<0.5	<100	<10	<10
Trichloroethene	79-01-6	0.5	0.5		<0.5	23,000	1,800	1,600
Trichlorofluoromethane	75-69-4	0.5	0.5		<0.5	<100	<10	<10
Vinyl acetate	108-05-4	1.0	1.0		<1.0	<200	<20	<20
Vinyl chloride	75-01-4	0.5	0.5		<0.5	<100	<10	<10
Total Xylenes	1330-20-7	0.5	0.5		<0.5	<100	<10	<10
				SURROGATE RECOVERY%				
				Dibromofluoromethane	93	91	93	95
				Toluene-d8	91	92	88	88
				4-Bromofluorobenzene	88	91	95	94

INT m.n.

Orange Coast Analytical, Inc.

Erler & Kalinowski, Inc.
ATTN: Mr. Brian Auchard
3250 Ocean Park Blvd. Suite 385
Santa Monica, CA 90405

Client Project ID: Webb
Client Project #: 991103.01

SAMPLE DESCRIPTION (Water)
Laboratory Reference #: EKI 12211

VOLATILE ORGANICS BY GC/MS (EPA 8260)

				Sampled:	03/08/01	03/08/01	03/08/01	03/08/01
				Received:	03/08/01	03/08/01	03/08/01	03/08/01
				Analyzed:	03/15/01	03/14/01	03/13/01	03/14/01
				Reported:	03/15/01	03/15/01	03/15/01	03/15/01
				Lab Sample I.D.	01030153	01030154	01030155	01030156
				Client Sample I.D.	MW-3	MW-4	MW-5	Rinsate Blank
				DILUTION FACTOR	20	1.0	50	1.0
ANALYTE	***CAS NUMBER***	***DETECTION LIMIT µg/l***	***MDL***		***SAMPLE RESULTS***			
					µg/l	***µg/l***	***µg/l***	***µg/l***
Acetone	67-64-1	2.0	2.0		<40	<2.0	<100	<2.0
Benzene	71-43-2	0.5	0.5		<10	<0.5	<25	<0.5
Bromodichloromethane	75-27-4	0.5	0.5		<10	<0.5	<25	<0.5
Bromoform	75-25-2	0.5	0.5		<10	<0.5	<25	2.3
Bromomethane	74-83-9	1.0	1.0		<20	<1.0	<50	<1.0
2-Butanone	78-93-3	1.0	1.0		<20	<1.0	<50	<1.0
Carbon Disulfide	75-15-0	0.5	0.5		<10	<0.5	<25	<0.5
Carbon tetrachloride	56-23-5	0.5	0.5		<10	<0.5	<25	<0.5
Chlorobenzene	108-90-7	0.5	0.5		<10	<0.5	<25	<0.5
Chlorodibromomethane	124-48-1	0.5	0.5		<10	<0.5	<25	<0.5
Chloroethane	75-00-3	0.5	0.5		<10	<0.5	<25	<0.5
2-Chloroethyl vinyl ether	110-75-8	1.0	1.0		<20	<1.0	<50	<1.0
Chloroform	67-66-3	0.5	0.5		<10	<0.5	<25	<0.5
Chloromethane	74-87-3	0.5	0.5		<10	<0.5	<25	<0.5
1,1-Dichloroethane	75-34-3	0.5	0.5		<10	<0.5	<25	<0.5
1,2-Dichloroethane	107-06-2	0.5	0.5		<10	<0.5	<25	<0.5
1,1-Dichloroethene	75-35-4	0.5	0.5		55	<0.5	<25	<0.5
cis-1,2-Dichloroethene	156-59-2	0.5	0.5		200	<0.5	260	5.4
trans-1,2-Dichloroethene	156-60-5	0.5	0.5		<10	<0.5	<25	<0.5
1,2-Dichloropropane	78-87-5	0.5	0.5		<10	<0.5	<25	<0.5
cis-1,3-Dichloropropene	10061-01-5	0.5	0.5		<10	<0.5	<25	<0.5
trans-1,3-Dichloropropene	10061-02-6	0.5	0.5		<10	<0.5	<25	<0.5
Ethylbenzene	100-41-4	0.5	0.5		<10	<0.5	<25	<0.5
2-Hexanone	591-78-6	1.0	1.0		<20	<1.0	<50	<1.0
Methylene chloride	75-09-2	2.5	2.5		<50	<2.5	<125	<2.5
4-Methyl-2-pentanone	108-10-1	1.0	1.0		<20	<1.0	<50	<1.0
Styrene	100-42-5	0.5	0.5		<10	<0.5	<25	<0.5
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.5		<10	<0.5	<25	<0.5
Tetrachloroethene	127-18-4	0.5	0.5		<10	<0.5	<25	<0.5
Toluene	108-88-3	0.5	0.5		<10	<0.5	140	<0.5
1,1,1-Trichloroethane	71-55-6	0.5	0.5		<10	<0.5	<25	<0.5
1,1,2-Trichloroethane	79-00-5	0.5	0.5		<10	<0.5	<25	<0.5
Trichloroethene	79-01-6	0.5	0.5		1,700	<0.5	3,600	120
Trichlorofluoromethane	75-69-4	0.5	0.5		<10	<0.5	<25	<0.5
Vinyl acetate	108-05-4	1.0	1.0		<20	<1.0	<50	<1.0
Vinyl chloride	75-01-4	0.5	0.5		<10	<0.5	<25	<0.5
Total Xylenes	1330-20-7	0.5	0.5		<10	<0.5	91	<0.5
				SURROGATE RECOVERY%				
				Dibromofluoromethane	95	95	109	96
				Toluene-d8	90	91	87	87
				4-Bromofluorobenzene	91	90	96	90

INT m.n.

Orange Coast Analytical, Inc.

Erler & Kalinowski, Inc.
ATTN: Mr. Brian Auchard
250 Ocean Park Blvd. Suite 385
Santa Monica, CA 90405

Client Project ID: Webb
Client Project #: 991103.01

SAMPLE DESCRIPTION (Water)
Laboratory Reference #: EKI 12211

Sampled:	03/08/01
Received:	03/08/01
Analyzed:	03/15/01
Reported:	03/15/01
Lab Sample I.D.	01030157
Client Sample I.D.	Rinsate water
DILUTION FACTOR	1

VOLATILE ORGANICS BY GC/MS (EPA 8260)

ANALYTE	***CAS NUMBER***	***DETECTION LIMIT µg/l***	***MDL***	***SAMPLE RESULTS µg/l***
Acetone	67-64-1	2.0	2.0	<2.0
Benzene	71-43-2	0.5	0.5	<0.5
Bromodichloromethane	75-27-4	0.5	0.5	<0.5
Bromoform	75-25-2	0.5	0.5	2.9
Bromomethane	74-83-9	1.0	1.0	<1.0
2-Butanone	78-93-3	1.0	1.0	<1.0
Carbon Disulfide	75-15-0	0.5	0.5	<0.5
Carbon tetrachloride	56-23-5	0.5	0.5	<0.5
Chlorobenzene	108-90-7	0.5	0.5	<0.5
Chlorodibromomethane	124-48-1	0.5	0.5	1.2
Chloroethane	75-00-3	0.5	0.5	<0.5
2-Chloroethyl vinyl ether	110-75-8	1.0	1.0	<1.0
Chloroform	67-66-3	0.5	0.5	<0.5
Chloromethane	74-87-3	0.5	0.5	<0.5
1,1-Dichloroethane	75-34-3	0.5	0.5	<0.5
1,2-Dichloroethane	107-06-2	0.5	0.5	<0.5
1,1-Dichloroethene	75-35-4	0.5	0.5	<0.5
cis-1,2-Dichloroethene	156-59-2	0.5	0.5	<0.5
trans-1,2-Dichloroethene	156-60-5	0.5	0.5	<0.5
1,2-Dichloropropane	78-87-5	0.5	0.5	<0.5
cis-1,3-Dichloropropene	10061-01-5	0.5	0.5	<0.5
trans-1,3-Dichloropropene	10061-02-6	0.5	0.5	<0.5
Ethylbenzene	100-41-4	0.5	0.5	<0.5
2-Hexanone	591-78-6	1.0	1.0	<1.0
Methylene chloride	75-09-2	2.5	2.5	<2.5
4-Methyl-2-pentanone	108-10-1	1.0	1.0	<1.0
Styrene	100-42-5	0.5	0.5	<0.5
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.5	<0.5
Tetrachloroethene	127-18-4	0.5	0.5	<0.5
Toluene	108-88-3	0.5	0.5	<0.5
1,1,1-Trichloroethane	71-55-6	0.5	0.5	<0.5
1,1,2-Trichloroethane	79-00-5	0.5	0.5	<0.5
Trichloroethene	79-01-6	0.5	0.5	0.7
Trichlorofluoromethane	75-69-4	0.5	0.5	<0.5
Vinyl acetate	108-05-4	1.0	1.0	<1.0
Vinyl chloride	75-01-4	0.5	0.5	<0.5
Total Xylenes	1330-20-7	0.5	0.5	<0.5

SURROGATE RECOVERY%

Dibromofluoromethane	95
Toluene-d8	90
4-Bromofluorobenzene	93

INT m.n.

Orange Coast Analytical, Inc.

Erler & Kalinowski, Inc.
ATTN: Mr. Brian Auchard
3250 Ocean Park Blvd. Suite 385
Santa Monica, CA 90405

Client Project ID: Webb
Client Project #: 991103.01

SAMPLE DESCRIPTION (Water)

Laboratory Reference #: EKI 12211

Sampled:	---	03/08/01	03/08/01	03/08/01
Received:	---	03/08/01	03/08/01	03/08/01
Reported:	03/15/01	03/15/01	03/15/01	03/15/01
Lab Sample I.D.	MB	01030150	01030151	01030152
Client Sample I.D.	---	MW-1	MW-2	MW-2 Dup

CCR METALS ANALYTE	***DATE TESTED***	***EPA METHOD***	***DETECTION LIMIT mg/l***	***SAMPLE RESULTS***			
				mg/l	***mg/l***	***mg/l***	***mg/l***
Antimony	03/14/01	200.7	0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	03/14/01	200.7	0.1	<0.1	0.24	<0.1	<0.1
Barium	03/14/01	200.7	0.01	<0.01	0.13	0.019	0.019
Beryllium	03/14/01	200.7	0.01	<0.01	<0.01	<0.01	<0.01
Cadmium	03/14/01	200.7	0.01	<0.01	<0.01	<0.01	<0.01
Chromium (VI)	03/09/01	218.4	0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Total)	03/14/01	200.7	0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	03/14/01	200.7	0.01	<0.01	<0.01	<0.01	<0.01
Copper	03/14/01	200.7	0.01	<0.01	<0.01	<0.01	<0.01
Lead	03/14/01	200.7	0.05	<0.05	<0.05	<0.05	<0.05
Mercury	03/12/01	245.1	0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum	03/14/01	200.7	0.05	<0.05	0.47	1.1	1.1
Nickel	03/14/01	200.7	0.01	<0.01	<0.01	<0.01	<0.01
Selenium	03/14/01	200.7	0.1	<0.1	<0.1	<0.1	<0.1
Silver	03/14/01	200.7	0.01	<0.01	<0.01	<0.01	<0.01
Thallium	03/14/01	200.7	0.1	<0.1	<0.1	<0.1	<0.1
Vanadium	03/14/01	200.7	0.01	<0.01	<0.01	<0.01	<0.01
Zinc	03/14/01	200.7	0.01	<0.01	0.016	0.015	0.014

INT m.n.

Orange Coast Analytical, Inc

Erler & Kalinowski, Inc.
ATTN: Mr. Brian Auchard
3250 Ocean Park Blvd. Suite 385
Santa Monica, CA 90405

Client Project ID: Webb
Client Project #: 991103.01

SAMPLE DESCRIPTION (Water)

Laboratory Reference #: EKI 12211

Sampled:	03/08/01	03/08/01	03/08/01	03/08/01
Received:	03/08/01	03/08/01	03/08/01	03/08/01
Reported:	03/15/01	03/15/01	03/15/01	03/15/01
Lab Sample I.D.	01030153	01030154	01030155	01030157
Client Sample I.D.	MW-3	MW-4	MW-5	Rinsate Water

CCR METALS ANALYTE	***DATE TESTED***	***EPA METHOD***	***DETECTION LIMIT mg/l***	***SAMPLE RESULTS***			
				mg/l	***mg/l***	***mg/l***	***mg/l***
Antimony	03/14/01	200.7	0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	03/14/01	200.7	0.1	<0.1	<0.1	0.15	<0.1
Barium	03/14/01	200.7	0.01	0.15	0.027	0.15	0.090
Beryllium	03/14/01	200.7	0.01	<0.01	<0.01	<0.01	<0.01
Cadmium	03/14/01	200.7	0.01	<0.01	<0.01	<0.01	<0.01
Chromium (VI)	03/09/01	218.4	0.01	<0.01	<0.01	<0.01	<0.01
Chromium (Total)	03/14/01	200.7	0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	03/14/01	200.7	0.01	<0.01	<0.01	<0.01	<0.01
Copper	03/14/01	200.7	0.01	<0.01	<0.01	<0.01	<0.01
Lead	03/14/01	200.7	0.05	<0.05	<0.05	<0.05	<0.05
Mercury	03/12/01	245.1	0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum	03/14/01	200.7	0.05	0.71	<0.05	0.84	<0.05
Nickel	03/14/01	200.7	0.01	<0.01	<0.01	<0.01	<0.01
Selenium	03/14/01	200.7	0.1	<0.1	<0.1	<0.1	<0.1
Silver	03/14/01	200.7	0.01	<0.01	<0.01	<0.01	<0.01
Thallium	03/14/01	200.7	0.1	<0.1	<0.1	<0.1	<0.1
Vanadium	03/14/01	200.7	0.01	<0.01	<0.01	<0.01	<0.01
Zinc	03/14/01	200.7	0.01	0.012	0.025	0.014	0.059

INT

Orange Coast Analytical, Inc

8260 QA / QC REPORT
Reporting Unit : µg/l

1 . Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Date Performed : 03/13/01
LAB Sample I . D . : A01030048
Laboratory Reference: EKI 12211

1,1-Dichloroethene	0	20	21	21	105	105	0	61-145	14
Benzene	0.0	20	21	20	105	100	5	76-127	11
Trichloroethene	8.2	20	27	27	94	94	0	71-120	14
Toluene	0.0	20	21	21	105	105	0	76-125	13
Chlorobenzene	0.0	20	22	22	110	110	0	75-130	13

R1 = Result of Laboratory Sample I.D.
SPK CONC = Spiking Concentration (≤5 X PQL) ; PQL = Practical Quantitation Limit.
MS = Matrix Spike Result
MSD = Matrix Spike Duplicate Result
%MS = Percent Recovery of MS: {(MS-R1)/SP} X 100.
%MSD = Percent Recovery of MSD: {(MSD-R1)/SP} X 100.
RPD = Relative Percent Difference: {(MS - MSD)/(MS + MSD)} X 100 X 2
ACP%MS(MSD) = Acceptable Range of Percent.
ACP RPD = Acceptable Relative Percent Difference

2 . Laboratory Quality Control check sample

Date Performed : 03/14/01

LAB Sample I . D . : 8583,84,85,86,87,88

trans-1,2-Dichloroethene	50	52	104	80 -120
1,1,1-Trichloroethane	50	50	100	80 -120
1,2-Dichloroethane	50	49	98	80 -120
Tetrachloroethene	50	49	98	80 -120
Styrene	50	49	98	80 -120

ANALYST: NAHID AMERI

DATE: 03/14/01

INT

Orange Coast Analytical, Inc.

QA / QC REPORT
Reporting Unit : mg/l

1 . Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

LAB Sample I . D . : 01030151, M01030023 (CrVI), 01030151 (Hg)

Analyte	DATE ANALYZED	R1	SP	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD
Amtimony	03/14/01	0.0	1.0	1.02	1.06	102	106	4	80-120	15
Arsenic	03/14/01	0.0	1.0	1.15	1.18	115	118	3	80-120	15
Barium	03/14/01	0.019	0.10	0.119	0.120	100	101	1	80-120	15
Beryllium	03/14/01	0.0	0.10	0.0998	0.101	100	101	1	80-120	15
Cadmium	03/14/01	0.0	0.10	0.103	0.103	103	103	0	80-120	15
Chromium	03/14/01	0.0	0.10	0.0934	0.0928	93	93	1	80-120	15
Chromium VI	03/09/01	0.0	0.10	0.0964	0.0976	96	98	1	80-120	15
Cobalt	03/14/01	0.0	0.10	0.0924	0.0935	92	94	1	80-120	15
Copper	03/14/01	0.0	0.10	0.111	0.110	111	110	1	80-120	15
Lead	03/14/01	0.0	1.0	0.944	0.970	94	97	3	80-120	15
Mercury	03/12/01	0.0	0.010	0.00990	0.0103	99	103	4	80-120	15
Molybdenum	03/14/01	1.1	1.0	2.12	2.13	102	103	0	80-119	15
Nickel	03/14/01	0.0	0.50	0.430	0.433	86	87	1	80-120	15
Selenium	03/14/01	0.0	1.0	1.04	1.07	104	107	3	80-120	15
Silver	03/14/01	0.0	1.0	0.997	1.00	100	100	0	80-120	15
Thallium	03/14/01	0.0	1.0	0.901	0.930	90	93	3	80-120	15
Vanadium	03/14/01	0.0	0.50	0.503	0.508	101	102	1	80-120	15
Zinc	03/14/01	0.015	0.10	0.111	0.111	96	96	0	80-120	15

R1 = Result of Laboratory Sample I.D.
SPK CONC = Spiking Concentration (<5 X PQL) ; PQL = Practical Quantitation Limit.
MS = Matrix Spike Result
MSD = Matrix Spike Duplicate Result
%MS = Percent Recovery of MS: {(MS-R1)/SP} X 100.
%MSD = Percent Recovery of MSD: {(MSD-R1)/SP} X 100.
RPD = Relative Percent Difference: {(MS - MSD)/(MS + MSD)} X 100 X 2
ACP%MS(MSD) = Acceptable Range of Percent.
ACP RPD = Acceptable Relative Percent Difference

ANALYST: Chris Tisserat DATE: 03/14/01

INT

Orange Coast Analytical, Inc.

2. Laboratory Quality Control check sample

LAB Sample I . D . : 01030152, M01030023 (CrVI), 01030151 (Hg

ANALYTE	Date Analyzed	SPK CONC	RESULTS	%RECOVERY	ACP %
Amtimony	03/14/01	0.50	0.46	92	80 - 120
Arsenic	03/14/01	0.50	0.48	96	80 - 120
Barium	03/14/01	0.50	0.48	96	80 - 120
Beryllium	03/14/01	0.50	0.49	98	80 - 120
Cadmium	03/14/01	0.50	0.49	98	80 - 120
Chromium	03/14/01	0.50	0.49	98	80 - 120
Chromium VI	03/09/01	0.35	0.33	94	80 - 120
Cobalt	03/14/01	0.50	0.51	102	80 - 120
Copper	03/14/01	0.50	0.48	96	80 - 120
Lead	03/14/01	0.50	0.47	94	80 - 120
Mercury	03/12/01	0.0050	0.0047	94	80 - 120
Molybdenum	03/14/01	0.50	0.48	96	80 - 120
Nickel	03/14/01	0.50	0.46	92	80 - 120
Selenium	03/14/01	0.50	0.47	94	80 - 120
Silver	03/14/01	0.50	0.47	94	80 - 120
Thallium	03/14/01	0.50	0.47	94	80 - 120
Vanadium	03/14/01	0.50	0.48	96	80 - 120
Zinc	03/14/01	0.50	0.49	98	80 - 120

ANALYST: Chris Tisserat DATE: 03/14/01

INT_____.

Orange Coast Analytical, Inc.

Erler & Kalinowski, Inc.
ATTN: Mr. Brian Auchard
3250 Ocean Park Blvd. Suite 385
Santa Monica, CA 90405

Sample Description: Soil,

Laboratory Reference #: EKI 12211

Client Project ID: Webb
Client Project #: 991103.01

Sampled: 03/08/01
Received: 03/08/01
Analyzed: 03/20/01
Reported: 03/22/01

TOTAL ARSENIC (EPA 206.2)

LABORATORY SAMPLE NUMBER	*CLIENT SAMPLE NUMBER*	*SAMPLE RESULTS µg/l*
01030150	MW-1	320
01030151	MW-2	6.6
01030152	MW-2 Duplicate	5.6
01030153	MW-3	80
01030154	MW-4	7.9
01030155	MW-5	190
01030157	Rinsate Water	4.4
Detection Limit		1.0

Analyte reported as N.D. were not present above the stated limit of detection.

INT_____

Orange Coast Analytical,Inc.

QC DATA REPORT

Analysis : Arsenic (EPA 206.2)

Date of Analysis : 03/20/01
Laboratory Sample No : 01030157
Laboratory Reference No : EKI 12211

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
Arsenic	2.2	5.0	6.88	7.28	93.6	102	6

Definition of Terms :

R1	Results Of First Analysis
SP	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
PR1	Percent Recovery Of MS: {(MS-R1) / SP} x100
PR2	Percent Recovery Of MSD: {(MSD-R1) / SP} x 100
RPD	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2

INT_min.

Orange Coast Analytical, Inc.

Analysis Request and Chain of Custody Record

Lab Job No: ____________
Page 1 of 1

ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064, Fax (714) 832-0067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

REQUIRED TAT: ____________

CUSTOMER INFORMATION

COMPANY: Erler + Kalinowski, Inc.
SEND REPORT TO: Brian Auchard
ADDRESS: 3250 Ocean Park Blvd.
Suite 384
Santa Monica, CA 90405
PHONE: 310-314-8855 FAX: 310-314-8860

PROJECT INFORMATION

PROJECT NAME: Webb
NUMBER: 991103.01
LOCATION:
ADDRESS: 5030 Firestone Blvd.
South Gate CA
SAMPLED BY:

SAMPLE ID	NUMBER OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	PRES.	8260	Hold							REMARKS/PRECAUTIONS
MW-1	2	3/8/01	1520	W	VOA	HCL	X								2 week turnaround
MW-2	2	3/8/01	1220	↓	↓	↓	X								
MW-2 duplicate	2	3/8/01	1215				X								
MW-3	2	3/8/01	1315				X								
MW-4	2	3/8/01	1005				X								
MW-5	2	3/8/01	1420				X								
[illegible]	[illegible]	[illegible]	[illegible]												
Rinsate blank	2	3/8/01	1325				X								
Rinsate Water	2	3/8/01	1335	↓	↓	↓	[illegible]	X							Hold - run for 8260 if any detections in rinsate blank (call EKI blank)

Total No. of Samples: 16

Method of Shipment: delivered to lab

Relinquished By: [signature]	Date/Time: 3/8/01 16:05	Received By: [signature]	Date/Time: 3/8/01 1625
Relinquished By: [signature]	Date/Time: 3/8/01 1746	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received For Lab By: [signature]	Date/Time: 5:52 pm 3/8/01

Reporting Format: (check)
NORMAL X S.D. HMMD ____
RWQCB ____ OTHER ____

Sample Integrity: (check)
intact ____ on ice ____

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pickup samples.

000808

Analysis Request and Chain of Custody Record

Lab Job No: _____
Page 1 of 1

ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064, Fax (714) 832-6067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

REQUIRED TAT: Normal

CUSTOMER INFORMATION	PROJECT INFORMATION
COMPANY: Erler & Kalinowski, Inc.	PROJECT NAME: Webb
SEND REPORT TO: Brian Avchard	NUMBER: 99103.01
ADDRESS: 3250 Ocean Park Blvd. Suite 385 Santa Monica, CA 90405	LOCATION: ADDRESS: 5030 Firestone Blvd South Gate, CA
PHONE: (310) 314-8855 FAX: (310) 314-8860	SAMPLED BY:

SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	PRES.	Hex Chrome	CAM-17 Metals	REMARKS/PRECAUTIONS
MW-1	1	3/8/01	1525	W	Plastic	HNO_3	X	X	
MW-2	1	3/8/01	1155	W	Plastic	HNO_3	X	X	
MW-2-Dup	1	3/8/01	1201	W	Plastic	HNO_3	X	X	
MW-3	1	3/8/01	1319	W	Plastic	HNO_3	X	X	
MW-4	1	3/8/01	1008	W	Plastic	HNO_3	X	X	
MW-5	1	3/8/01	1430	W	Plastic	HNO_3	X	X	
Rinsate Water	1	3/8/01	1330	W	Plastic	HNO_3	X	X	

Total No. of Samples: 7 Method of Shipment: Delivered

Relinquished By: Sheldon Hayl	Date/Time: 3/8/01 16:05	Received By:	Date/Time: 3/8/01 1605
Relinquished By:	Date/Time: 3/8/01 1746	Received By:	Date/Time: 1746
Relinquished By:	Date/Time:	Received For Lab By: Burt Sevier	Date/Time: 3/8/01 5:50pm

Reporting Format: (check)
NORMAL X S.D. HMMD _____
RWQCB _____ OTHER _____

Sample Integrity: (check)
intact _____ on ice _____

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pickup samples.

608000